HICKOK

INSTRUCTION MANUAL

for

MODEL 752A
DYNAMIC MUTUAL CONDUCTANCE TUBE TESTER

Manual No. 2490-582

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CHAPTER I - INTRODUCTION

GENERAL DESCRIPTION

The Hickok Model 752A Tube Tester combines the characteristics of accuracy and dependability together with the advantages of portability and simplicity of operation to meet the needs of those technicians who maintain modern electronic equipment. The design specifications of the Model 752A include the very latest tube-testing techniques to provide an accurate evaluation of the performance capabilities of electron-tubes of the receiving and low power transmitting types.

The Model 752A employs the Dynamic Mutual Conductance test method to evaluate electron tubes of the amplifier type. The results obtained from this test method are indicative of the performance capabilities of a tube in actual equipment operation. The dynamic mutual conductance of the tube under test is quantitatively indicated directly in micromhos on the test meter.

The Model 752A employs a controlled emission test to provide a meaningful evaluation of diode tubes of the rectifier and detector types. The instrument also provides a voltage regulator tube test circuit which permits the testing of voltage regulator tubes in accordance with tube manufacturers' handbook operating conditions.

To insure a complete evaluation of the tube under test, the Model 752A provides three basic fringe tests: (1) An interelement short and leakage test is provided as a preliminary check on all electron-tubes. The resistance of interelement leakage paths is measured directly in ohms on the test meter. (2) A gas test is also provided; this test is an integral step in the evaluation of any amplifier type tube. (3) A life test, which determines the efficiency of the cathode, is provided to forecast the future life of the tube under test.

The outstanding feature of the Model 752A is the dual tube test which permits the testing of electron-tubes containing electrically similar sections with one setting of the selector switches. Each section of the tube is independently tested for interelement leakage, performance capability, and gas by simply depressing an additional push button which transfers the tube test conditions from one section of the tube to the other. This feature is particularly useful when testing and selecting tubes for use in balanced circuits.

Many new mechanical design features have been incorporated into this tester to facilitate the rapid selection of the proper test conditions for the tube under test. The panel layout is designed to provide a direct correlation between the order in which the roll chart data is presented and the order in which the tube-test selector switches are arranged. This arrangement not only reduces the time needed for testing a tube, but also reduces the possibility of operator-error in setting up the specific tube test conditions. To further reduce the time normally required in testing tubes and to aid in the interpretation of test results, the test meter scales have been simplified. Mutual conductance values are indicated on one basic 0-1500 micromho scale. The Gm of the tube under test can be determined by multiplying the indicated meter reading by the multiplier selector switch setting. Separate meter scales are provided for the interelement leakage and voltage regulator test circuits.

The Model 752A also makes available on its main panel ten of the most commonly used tube sockets. The various tube parameters are applied to the pins of these tube sockets through anti-oscillation wiring by a system of rotary selector switches. These selector switches are numbered in accordance with the EIA system of tube pin designation, and are wired in such a way that they are electrically interlocked to prevent the application of two different test potentials to the same tube pin. This not only prevents damage to the tube under test, but also prevents damage to the tester.

The following special tube adapters are available for use with the Model 752A:

NOMENCLATURE		HICKOK CODE NO.
Adapter:	Cathode ray tube	1050-28
Adapter:	2C39C tube	1050-50
Adapter:	Long-lead submin. tube	1050-89
Adapter:	829B tube	1050-107
Adapter:	4X150A/4X250B tube	1050-109
Adapter:	991 tube	1050-118
Adapter:	2C36 tube	1050-119
Adapter:	2-01C tube	1050-120
Adapter:	6263, 6173, 5675 pencil tubes	1050-121

The built-in roll chart provides the test data for all the tubes normally encountered in the servicing of modern electronic equipment. The roll chart is replaceable, and revised roll charts can be ordered direct from the factory. (See page 3).

Detailed information on the physical and electrical properties of the Model 752A can be found in the Specifications Section.

To ensure safe, accurate and efficient service from your tube tester, Chapter II (Operating Instructions), should be carefully read and understood.

MODIFICATION TO 230-VOLT OPERATION

The Model 752A Tube Testers, beginning with tube testers bearing serial numbers prefixed with 324 and above, are designed to operate on either 115 volts or 230 volts. They are shipped from the factory to operate on 115 volts. If 230-volt operation is desired, it is necessary to change the wiring of the power transformer from a parallel hookup to a series hookup. For 115-volt operation, no modification is necessary. For parallel and series hookups, see the schematic wiring diagram in the rear of this manual.

For modification of the Model 752A Tube Tester from 115 volts to 230 volts, proceed as follows:

a. POWER TRANSFORMER

1. Disconnect the black wire which is connected to the lug marked (w), and disconnect the white-black wire which is connected to the lug marked (x). Both located on transformer.

2. Splice together and solder the two above wires. Insulate connection with electrical insulating tape.

3. Do not disturb other wires which are connected to the lugs marked (w) and (x). Inspect (w) and (x) for good electrical connection.

b. LINE FUSE

1. Replace the No. 81 fuse lamp with a No. 63 lamp.

c. CALIBRATION

1. Plug tube tester into a 230-volt a. c. power source and turn on.

2. Rotate LINE ADJUST until the needle on the meter is in the area marked LINE TEST.

3. No further calibration is necessary.

d. For modification from 230 volts to 115 volts, reverse the above procedure.

SPECIFICATIONS

I POWER REQUIREMENTS:

A.	Voltage:	115 volts or 230 volts.
B.	Frequency:	50 - 60 Hz.
C.	Power Consumption:	40 watts, minimum. 70 watts, maximum.
D.	Protection:	Line fuse (#81 lamp), for 115-volt operation. Line fuse (#63 lamp), for 230-volt operation. Bias fuse (#49 lamp).

II TUBE-TEST POTENTIALS:

A.	Plate Voltages:	75 and 150 volts d. c.
B.	Screen Voltages:	56 and 130 volts d. c.
C.	Fixed Bias Voltages:	0 to -40 volts d. c., adjustable.
D.	Extra Negative Voltage:	-40 volts d. c.
E.	Provisions for Self-bias Tests.	
F.	Signal Voltages:	0.25, 0.5, 1.25, 2.5 volts a. c., 60 cycles.
G.	Diode Test Voltage:	20 volts RMS.
H.	V. R. Tube Test Voltages:	0-200 volts d. c., adjustable.
I.	0Z4 Test Voltage:	287 volts RMS.
J.	Filament Voltages:	0-117 volts a.c. (18 steps)

III TEST METER:

A.	Mutual Conductance Ranges:	0-1500/3000/6000/15,000/30,000μ mhos (Readings obtained from basic 0-1500 Gm scale and multiplier switch.)
B.	V. R. Test Scales:	0-200 volts d. c. 0-100 milliamperes.
C.	Leakage Scale:	Calibrated in ohms.

IV TUBE COMPLEMENT:

Quantity	Type
1 ea.	83
1 ea.	5Y3GT/G

V PHYSICAL SPECIFICATIONS:

A.	Height:	7-1/2"
B.	Width:	18-3/8"
C.	Depth:	16-3/4"
D.	Weight:	25 lbs.
E.	Case:	Portable, black leatherette covered.

CHAPTER II - OPERATING INSTRUCTIONS

SECTION I: PANEL COMPONENTS - IDENTIFICATION AND FUNCTION.

A. THE CONTROLS:

1. The POWER ON-OFF switch controls power input to Model 752A.

2. The LINE ADJUST controls the input voltage to the power transformer for proper standardization of test potentials applied to the tube under test.

3. The FILAMENT VOLTAGE switch provides an 18-step selection of filament or heater voltages from 0.6 volts through 117 volts a. c. An OFF position is also provided for use when testing V. R. tubes and cold cathode rectifiers.

4. Selector switches, FILAMENT (2), GRID A, GRID B, PLATE, SCREEN, CATHODE, and SUPPRESSOR, provide proper switching of the internal circuits to apply the correct test potentials to the various pins of the tube under test.

5. The BIAS control is used to adjust the bias voltage applied to the tube under test.

6. The SHUNT control is a dual potentiometer used to adjust the sensitivity of the meter circuit to the proper level required for testing rectifier and detector type diodes.

7. The MULTIPLIER switch is used to select the proper meter range for the particular type of tube under test. For mutual conductance tests, the MULTIPLIER switch is set to the X1, X2, X4, X10 or X20 position. This extends the full scale range of the basic 0-1500 micromho scale to 3000, 6000, 15,000 and 30,000 micromhos, respectively. For controlled emission tests on rectifier and detector type diodes, the MULTIPLIER switch is set to the SH or shunt position. This connects the SHUNT potentiometer into the circuit, and this control should then be set to the value indicated on the roll chart. For voltage regulator tests, the MULTIPLIER switch is set to the V. R. position. In the V. R. position, the test meter becomes a 0-200 VDC voltmeter, and when S-9 is depressed the test meter becomes a 0-100 milliammeter.

8. The LEAKAGE switch, when rotated through positions 1, 2, 3, 4, 5 and 6, connects the various elements of the tube under test across a test voltage. In certain positions of the LEAKAGE switch, tubes having interelement leakage paths will complete the test circuit and cause the pointer of the test meter to move up scale.

9. The ten push-button switches located in the lower right-hand portion of the panel actuate the proper test circuit, as indicated on the roll chart. Their designation and function is as follows:

   a. S1 - DIODE: used when testing low-power diodes, such as the 6H6.
   b. S2 - 0Z4: used when testing cold cathode rectifiers, such as the 0Z4.
   c. S3 - RECT: used when testing rectifiers, such as the 5Y3, 6X4, etc.
   d. S4 - LOW PLT: used when testing amplifier type tubes, such as the 1R5 and 1S4.
   e. S5 - RED GM: push button for mutual conductance test on amplifier tubes only. NEVER USE THIS BUTTON WHEN TESTING RECTIFIER TUBES.
   f. S6 - GAS #1, and S7 - GAS #2: used when making gas test on amplifier tubes.
   g. S8 - PLT #2: used when testing multiunit tubes with electrically similar sections. By depressing S8, the test conditions are transferred from one section of the tube to the other; thus, each section can be independently evaluated.
   h. S9 - VR MILS: this switch converts the test meter into a 0-100 milliammeter during the V. R. tests.
   i. S10 - LINE: used in conjunction with the LINE TEST point on the meter to standardize tube test potentials.

10. The VR VOLTAGE adjust is used to control the voltage applied to voltage regulator tubes during a V. R. test.

11. The LIFE TEST switch is used when making a reserve life test on a tube. When this switch is pressed, the filament voltage of the tube under test is reduced by approximately 10% of its normal value. The efficiency of the cathode of the tube under test can then be evaluated and the future life of the tube approximated.

B. The TEST METER gives a quantitative indication of the tube-test results on three separate scales.

1. The LEAKAGE scale is calibrated in ohms. Interelement leakage paths up through 10 megohms can be measured.

2. The MICROMHOS scale is used to give a quantitative indication of the results of the Gm, Emission, and Gas tests. The range of the basic 0-1500 micromho scale is extended by use of the MULTIPLIER switch. The readings obtained on this scale, when compared with the MINIMUM MUT. COND. column of the roll chart, are indicative of the performance capabilities of the tube under test.

3. The VOLTS-MILS scale is calibrated in d. c. volts and milliamperes. During V. R. tests, it indicates the striking, operating and regulating

voltage of the V. R. tube, along with the current range over which the tube is regulating.

C. The TEST SOCKETS are located along the upper edge of the panel and to the left of the test meter. The 15 tube sockets provided will accommonate the following tube-types: In-line and 8 pin Subminiatures, Octal, Loktal, 7 pin Miniature, 4, 5, 6 and 7 pin Standard, Acorn, and 9/10 pin miniature, 5 pin Nuvistor, 7 pin Nuvistor, Compactron and Novar.

D. LEADS, LAMPS and CONNECTIONS:

1. Two TEST LEADS are provided to make connections from the G, P and K panel jacks to the top caps of tubes as required. When the leads are not in use, they can be stored in the lead compartment at the top of the case.

The LINE FUSE lamp serves both as a protective device and an overload indicator. This lamp will light brightly when an overload is placed on the tester or the tube under test. When this occurs, turn OFF the equipment immediately. The LINE FUSE lamp (#81 or #63, depending upon the input voltage) is mounted in the upper left-hand portion of the main panel, where it is readily visible.

3. The BIAS FUSE lamp is connected into the bias supply circuit. It serves as a protection for the bias potentiometer in case an attempt is made to test a shorted tube. A burned-out BIAS FUSE lamp will result in the failure of the test meter to read when the Gm button is pressed. The BIAS FUSE lamp (#49) is mounted in the upper left-hand portion of the main panel, where it is readily visible.

4. One red and two black jacks, marked P, G and K, respectively, provide connections for the test leads necessary to test tubes with top cap connections.

5. The EXT. SELF BIAS RES. jacks provide the means of making self bias tests. IMPORTANT- the shorting link across the SELF BIAS terminals must be in place when these terminals are not in use.

E. TUBE TEST DATA:

1. All information necessary for properly setting the tube test controls for the various tube types is tabulated on the roll chart in nine columns under the following headings, reading from left to right:

a. TUBE TYPE: All currently available type numbers for the tubes which the Model 752 is designed to test are listed numerically in this column, starting with type 0A2 and continuing through type AX9903.

b. FILAMENT: Correct filament or heater voltages for the tube type to be tested are shown in this column. The FILAMENT VOLTAGE switch must be adjusted BEFORE inserting a tube in any of the test sockets.

c. SELECTORS: The tube pin selectors FILAMENT (2), GRID A, GRID B, PLATE, SCREEN, CATHODE and SUPPRESSOR are to be set in accordance with the two groups of four digit numbers appearing in this column. For example, the selector settings for the 12AT7 are listed as 4572-6183; the selectors are set as follows:

SELECTOR	POSITION NO.
FILAMENT	4
FILAMENT	5
GRID A	7
GRID B	2
PLATE	6
SCREEN	1
CATHODE	8
SUPPRESSOR	3

d. BIAS: This column lists the proper settings for the BIAS dial which controls the bias voltage applied to the tube under test.

e. SHUNT: This column lists the settings for the SHUNT dial which controls the sensitivity of the meter circuit. Adjustment of this dial is only required when the MULTIPLIER switch is in the SH position.

f. MULT: This column lists the position to which the MULTIPLIER switch should be set to provide the proper meter range for the type of tube under test.

g. PRESS: This column lists the proper push button switches to be pressed to complete the various test circuits applicable to the tube under test.

h. MINIMUM MUT. COND: In this column are the minimum mutual conductance rejection values for amplifier tubes and amplifier sections of multi-purpose tubes. The rejection values for rectifier and detector type diodes are also listed in this column, along with the nominal operating voltage for V. R. tubes.

i. NOTATIONS: Listed in this column is special information applicable to the tube under test.

SECTION II: GENERAL OPERATING PROCEDURES

A. PRELIMINARY PROCEDURES:

1. Remove the line cord from the lead compartment and connect its plug into a power outlet of either 115 volts or 230 volts, 60 cycles, depending upon the mode of operation. See the instructions on pages two and three for the

correct hook-up of 115-volt operation or 230-volt operation. NEVER CONNECT THIS EQUIPMENT TO A DC POWER SOURCE.

> CAUTION
>
> DO NOT INSERT TUBE TO BE TESTED INTO TEST SOCKET UNTIL CORRECT SETTING OF ALL CONTROLS HAS BEEN MADE IN ACCORDANCE WITH THE FOLLOWING STEPS.

2. Operate the thumb gear which turns the roll chart mechanism until the tube number of the tube to be tested appears in the roll chart window. A red index line aids in selecting correct data line from the roll chart.

3. Turn the knob of the FILAMENT VOLTAGE switch to the voltage indicated on the roll chart under the heading FIL.

4. Set the eight tube pin selector switches in accordance with two groups of four digit numbers appearing in the column headed SELECTORS.

   The selector switches are electrically interlocked in such a way that it is impossible to connect two different voltages to the same tube pin at the same time. Accidental shorts are thus avoided.

5. Set the BIAS dial to the numerical setting listed on the roll chart under the heading of BIAS.

6. Set the SHUNT dial to the numerical setting listed on the roll chart under the heading of SHUNT. If no setting of this dial is required, a short dotted line will appear in the column.

7. Set the MULTIPLIER switch to the position indicated on the roll chart.

8. Set the LEAKAGE switch to the TUBE TEST POSITION.

9. Insert the tube to be tested into the proper test socket, and if applicable, make top cap connection as called for in NOTATIONS column of the roll chart.

10. Set the POWER ON-OFF to the ON position.

    NOTE: ALLOW SUFFICIENT TIME FOR THE TUBE UNDER TEST TO REACH ITS OPERATING TEMPERATURE BEFORE PROCEEDING.

11. LINE TEST: Depress push button S10 and rotate the LINE ADJUST control until the test meter pointer indicates to the line marked "Line Test".

B. THE LEAKAGE TEST PROCEDURES:

1. Rotate the LEAKAGE switch from position number 1 through position number 6, while tapping the tube lightly with your finger and watching the test meter for pointer deflection.

   Tubes having interelement shorts and leakage paths will cause the meter pointer to move up scale in various positions of the LEAKAGE switch. A momentary deflection of the test meter pointer when the LEAKAGE switch is turned from one position to the next should be disregarded. These meter pointer deflections are caused by the charging of a capacitor in the leakage test circuit. Intermittent meter pointer deflections as a result of tapping the tube indicate loose elements which may cause noisy or erratic tube operation.

   A leakage resistance of 10 megohms will cause the meter pointer to begin to indicate. A complete interelement short will cause the pointer to deflect full scale to give a zero ohms reading. The top scale of the meter is the LEAKAGE scale, and it is calibrated in ohms such that the resistance of leakage paths up to 10 megohms can be read directly from the scale.

2. A shorted tube or one with excessive interelement leakage should be discarded with no further testing.

3. Multisection tubes containing dissimilar sections, such as the 6CG8, should be tested for shorts and leakage on both sections.

4. Multisection tubes containing electrically similar sections, such as the 6J6, can make use of the DUAL TEST circuit.

   FOR EXAMPLE: For dual triodes, make the normal leakage test as described in step 1 of part (B); then depress push button S8 and repeat the leakage test for the second section.

5. Table No. 1: Leakage Test Chart, is to be used for identifying interelement leakage paths. In Table No. 1 an (X) under any LEAKAGE switch position represents a meter pointer deflection in that position; thus, by referring to the Leakage Path column of Table No. 1, the defective elements can be identified.

6. The circuit used in testing dual triodes is such that the SCREEN selector is used as the plate of the second section, and the SUPPRESSOR selector is used as the cathode of the second section. Thus, plate to plate and cathode to cathode, shorts or leakages will be identified on the Leakage Test Chart as plate to screen and cathode to suppressor shorts or leakages.

7. Some tubes will show a shorted condition on certain positions of the LEAKAGE switch even though they are good tubes. These positions are noted in the NOTATIONS column of the roll chart. That is, "Short on 1 and 2" means that a short indication on positions 1 and 2 is normal.

C. MUTUAL CONDUCTANCE (Gm) TEST: This is the basic quality test for tubes used as amplifiers.

TABLE NO. I: LEAKAGE TEST CHART

LEAKAGE PATH	LEAKAGE SWITCH POSITIONS					
	1	2	3	4	5	6
HEATER - CATHODE	X	X				
HEATER - GRID A			X	X	X	
HEATER - GRID B			X	X	X	X
HEATER - SCREEN			X			
HEATER - SUPPR.		X				
HEATER - PLATE			X	X		
CATH. - GRID A	X	X	X	X	X	
CATH. - GRID B	X	X	X	X	X	X
CATH. - SCREEN	X	X	X			
CATH. - SUPPR.	X					
CATH. - PLATE	X	X	X	X		
GRID A - GRID B						X
GRID A - SCREEN				X	X	
GRID A - SUPPR.		X	X	X	X	
GRID A - PLATE					X	
GRID B - SCREEN				X	X	X
GRID B - SUPPR.		X	X	X	X	X
GRID B - PLATE					X	X
SCREEN - SUPPR.		X	X			
SCREEN - PLATE				X		
SUPPR. - PLATE		X	X	X		

After the controls are properly set in accordance with the roll chart data as outlined in Part A of this section and the tube has been tested for leakage in accordance with Part B of this section, proceed as follows:

1. Set the LEAKAGE switch to the TUBE TEST position.
2. Recheck LINE ADJUST TEST and reset if necessary.
3. Press the Gm push button S5 and observe the test meter indication.
4. Compare the numerical value of the meter reading on the 0-1500 scale with the minimum acceptable value listed on the roll chart under the column headed MINIMUM MUT. COND.
5. The meter reading can be read directly in micromhos through the use of the MULTIPLIER setting and the basic 0-1500 micromho scale.

   NOTE: On special types of amplifier tubes, the push buttons to be used may vary with the particular tube type under test. Always refer to the roll chart for the correct push buttons to use.

D. GAS TEST: The push buttons S6 and S7 are used to test an amplifier tube for gas content. After the tube under test has been tested for Gm, proceed as follows:

1. Set the MULTIPLIER switch to the X2 position. This extends the Micromho Scale to the 0-3000 range.
2. Turn the BIAS dial full clockwise to indicate 100.
3. Depress push button S6 and hold in the down position while adjusting the BIAS dial until the pointer of the meter indicates 100 micromhos on the 0-3000 range.
4. Hold down S6 and depress push button S7 while observing the meter pointer.
5. If the tube contains gas, the pointer of the meter will move up scale. If the pointer movement is not more than two small scale divisions, the gas content is negligible.
6. With some tubes, such as the Type 45, the micromho reading cannot be brought down to 100 micromhos by turning the BIAS dial. In such cases, turn the BIAS dial clockwise to 100. Test for gas by noting whether the pointer moves more than two divisions up scale when S6 is held down and S7 is depressed.
7. Some tubes will give an indication of gas only after they have been operating for a period of time. If a tube is suspected of being gassy, allow it to heat for a few minutes.

E. RESERVE LIFE TEST: This test is used to approximate the future life of the tube. After the mutual conductance test has been made as previously described, proceed as follows:

1. Set the MULTIPLIER switch to the SH position.
2. Turn the SHUNT dial full clockwise to indicate 100.
3. Depress push button S5 and hold in down position while adjusting the SHUNT dial until the meter pointer indicates to 1000 on the 0-1500 scale.
4. Hold down S5 and depress the LIFE TEST switch. This switch reduces the filament voltage applied to the tube under test.
5. If the meter reading remains above mid-scale, the reserve life of the tube under test may be considered satisfactory.

F. RECTIFIER TUBE TEST: Rectifier tubes, including diode tubes and diode sections of multisection tubes, are tested for emission characteristics, since they have no mutual conductance characteristic. The push button switches S1, S2 and S3 are used to test various types of rectifiers and detector diodes.

1. The push button switch S1 is used when testing detector diodes. This switch supplies a test voltage sufficiently low in magnitude so as not to damage the delicate cathode of the diode under test.
2. The push button S2 is used when testing cold cathode rectifiers such as the 0Z4. This switch applies a test voltage sufficiently high to ionize the tube and start conduction.
3. The push button S3 is used when testing rectifier tubes such as 5Y3. This switch applies a test voltage of sufficient magnitude to reveal the defects in this type of tube.

G. DUAL TEST: For multisection tubes containing electrically similar sections, the notation DUAL TRIODE or DUAL DIODE will appear in the NOTATIONS column of the roll chart. When the dual test is called for, the following procedure is applicable:

1. DUAL TRIODE: After the controls are properly set in accordance with the roll chart data as outlined in Part A of this section, proceed as follows:
   a. Rotate the LEAKAGE switch from position 1 through position 6 and observe the test meter for indications of leakage paths.
   b. Depress push button S8 and repeat the leakage test for the second section of the tube.
   c. Set the LEAKAGE switch to the TUBE TEST position.

d. Depress push button S5 - Gm, and observe the test meter for an indication of the Gm of the first section. Release S5.

e. A Gas Test for the first section should be performed as described in Part D of this section.

f. After the first section has been completely tested, depress push button S8 and hold in down position while S5 is again depressed and the second section of the tube under test is checked for Gm.

h. During testing of each section of the dual triode, the grid of the unused section is kept at cut-off bias by the extra negative bias supply.

2. DUAL DIODE: The testing of dual diodes is performed as described above, with two exceptions:

a. The diode test push button (S1, S2 or S3) as called for in the PRESS column of the roll chart is to be used in conjunction with S8.

b. The Gas Test is not applicable to diodes and rectifiers.

H. SPECIAL TUBE TYPES:

1. Voltage Regulator Tubes: The voltage regulator test circuit permits the testing of V. R. tubes under actual operating conditions. The V. R. test circuit measures the voltage drop across the tube under test; hence, the striking voltage and the voltage drop for minimum and maximum load currents can be read directly in volts on the test meter.

With the MULTIPLIER switch in the V. R. position, the VR VOLTAGE dial controls the magnitude of the test voltage applied to the tube. The push button switch S9 converts the test meter from a voltmeter to a milliammeter. The bottom scale of the meter is used to evaluate the results of the V. R. test. This scale is calibrated in VOLTS (0-200 v. d. c.) and MILS (0-100mA d. c.).

For example, the 0A3:

a. Set the FILAMENT voltage switch to the OFF position.

b. Set the tube pin selector switches to 0000-5020.

c. Set the MULTIPLIER switch to the V. R. position.

d. Turn the VR VOLTAGE control fully counterclockwise.

e. Turn the LINE ADJUST control fully clockwise.

f. Insert the 0A3 into its proper test socket and turn the tester ON.

g. In the NOTATIONS column for the 0A3 is the voltage value 100V with a star in front of it. This notation represents the approximate starting voltage for the V. R. tube. In the column MINIMUM MUT. COND. is the voltage value 75V. This represents the nominal operating voltage for the V. R. tube.

h. Rotate the VR VOLTAGE control slowly clockwise. The meter pointer should begin to indicate. The voltage value is read on the 0-200 volts scale.

i. When the meter indicates approximately 100 volts, the tube should fire. This will cause the meter pointer to hesitate and drop back to the operating voltage value of the tube under test. In the case of the 0A3, it is 75V.

j. Depress push button S9 - VR MILS. This converts the test meter from a voltmeter to a milliammeter, and it should indicate approximately 5mA on the 0-100 MILS scale.

k. While holding S9 in the down position, continue to rotate the VR VOLTAGE control clockwise until the test meter indicates 40mA.

l. Release S9 and read the voltage indicated on the test meter. For a good 0A3, the operating voltage should not have risen more than 5 volts above the nominal operating voltage.

2. Certain pentode tubes, such as the 6AJ5, require a low screen voltage and a normal plate voltage during test. This is accomplished by holding down S1 and pressing S5. When applicable, a note is printed on the roll chart under the heading of NOTATIONS: HOLD DOWN S1 AND PRESS S5.

3. Cathode-Ray Tube Test. With the use of the Hickok CRT Adapter, magnetic or electrostatic type T. V. picture tubes having a small shell duo-decal base can be given an interelement leakage test, a cathode emission test, a control grid test and a gas test.

a. Preliminary Instructions:

(1) Remove the socket from the cathode-ray tube to be tested.

(2) Affix the CRT Adapter to the tube to be tested.

(3) Attach the red lead to the No. 2 anode of the tube under test.

(4) Insert the 8 pin plug on the cable of the CRT Adapter into the octal tube test socket on the main panel of the Model 752A.

b. Cathode Emission Test.

(1) Set the selectors and dials as follows:

FIL	SELECT.	BIAS	SH	MULT	PRESS	MIN. MUT. COND.
6.3	7230-5084	0	75	SH	S1	650

(2) Make an interelement leakage test by rotating the LEAKAGE switch through positions 1 through 6.

(3) Set the LEAKAGE switch to the TUBE TEST position.

(4) Depress S1 and observe the test meter indication. A good tube should read above the recommended reject value noted above.

c. Grid Control and Gas Test.

(1) Set the selectors and dials as follows:

FIL	SELECTORS	BIAS	SHUNT	MULT	PRESS
6.3	7250-3084	*	0	SH	S6

(2) Make an interelement leakage test as described above.

(3) Set the LEAKAGE switch to the TUBE TEST position.

(4) * Hold down S6 and rotate the BIAS dial. If the control grid is functioning, the meter pointer will move up and down scale.

(5) Gas Test: Adjust BIAS control until the test meter reads one small scale division. Hold down S6 and depress S7.

If the meter pointer moves up scale more than one division, the tube is gassy.

The Hickok CRT Adapter (Code No. 1050-28) is available through Hickok distributors.

J. DIODE TESTING:

1. Silicon of Germanium Diodes are tested for their rectification quality. To test these types on the Model 752A Tube Tester, proceed as follows:

a. Set the FILAMENT switch to the OFF position.

b. Set the tube pin selector switches to 0000-6030.

c. Set the LEAKAGE switch to the TUBE TEST position.

d. Set the BIAS control to 0.

e. Set the MULTIPLIER switch to the SH position.

f. Set the SHUNT control to the 65 dial mark.

g. Connect the cathode lead of the diode to pin 3 of the octal test socket and the anode lead of the diode to pin 6 of the octal test socket. (If more convenient, the grid and plate leads supplied with the tester may be used to make these connections.)

h. Place the POWER ON-OFF switch to the ON position and make line test in the usual manner.

i. Depress push button S3 and observe the test meter. The test meter reading should be above 650 to indicate a good diode. A zero test meter reading indicates that the diode is either shorted or open. NOTE: If the test meter indicates down scale, reverse the diode leads and repeat this step.

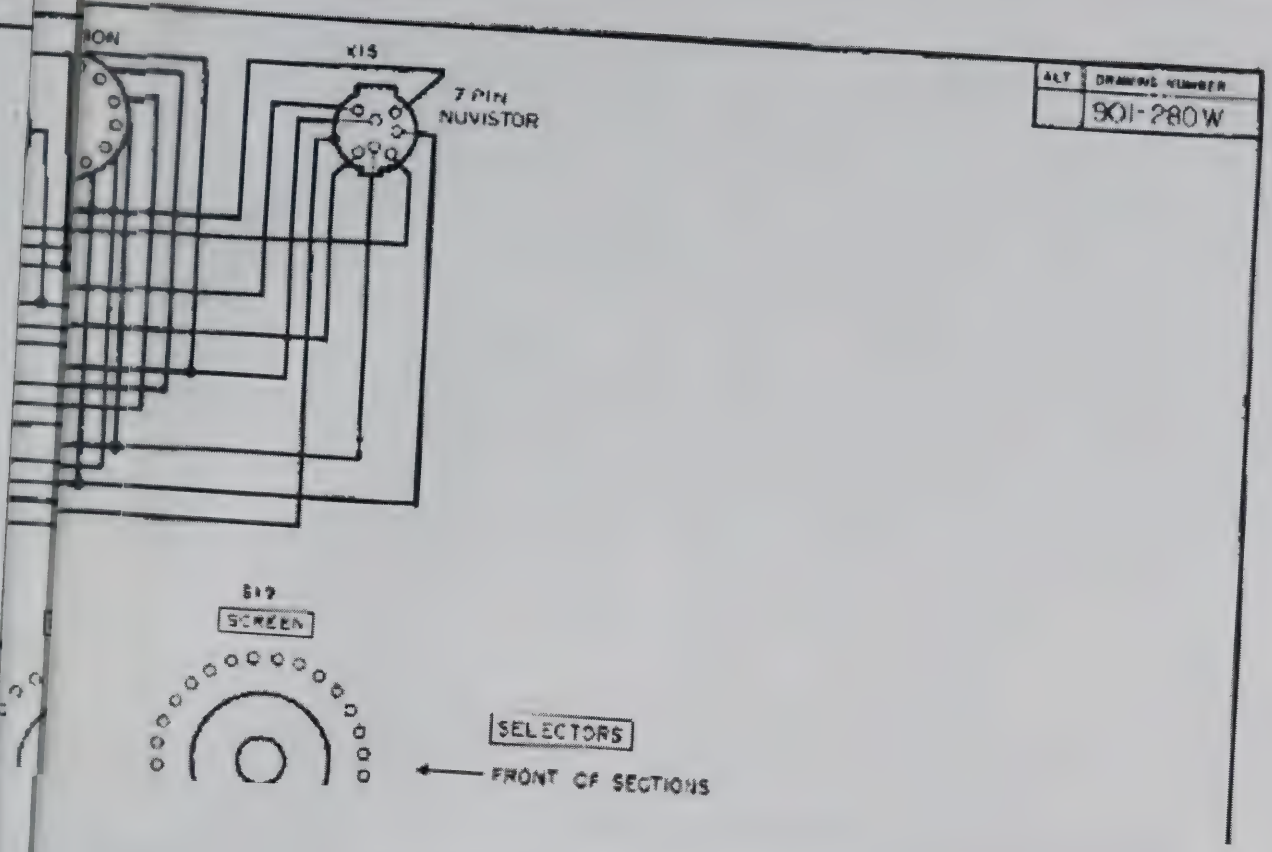
CHAPTER III
PARTS LIST

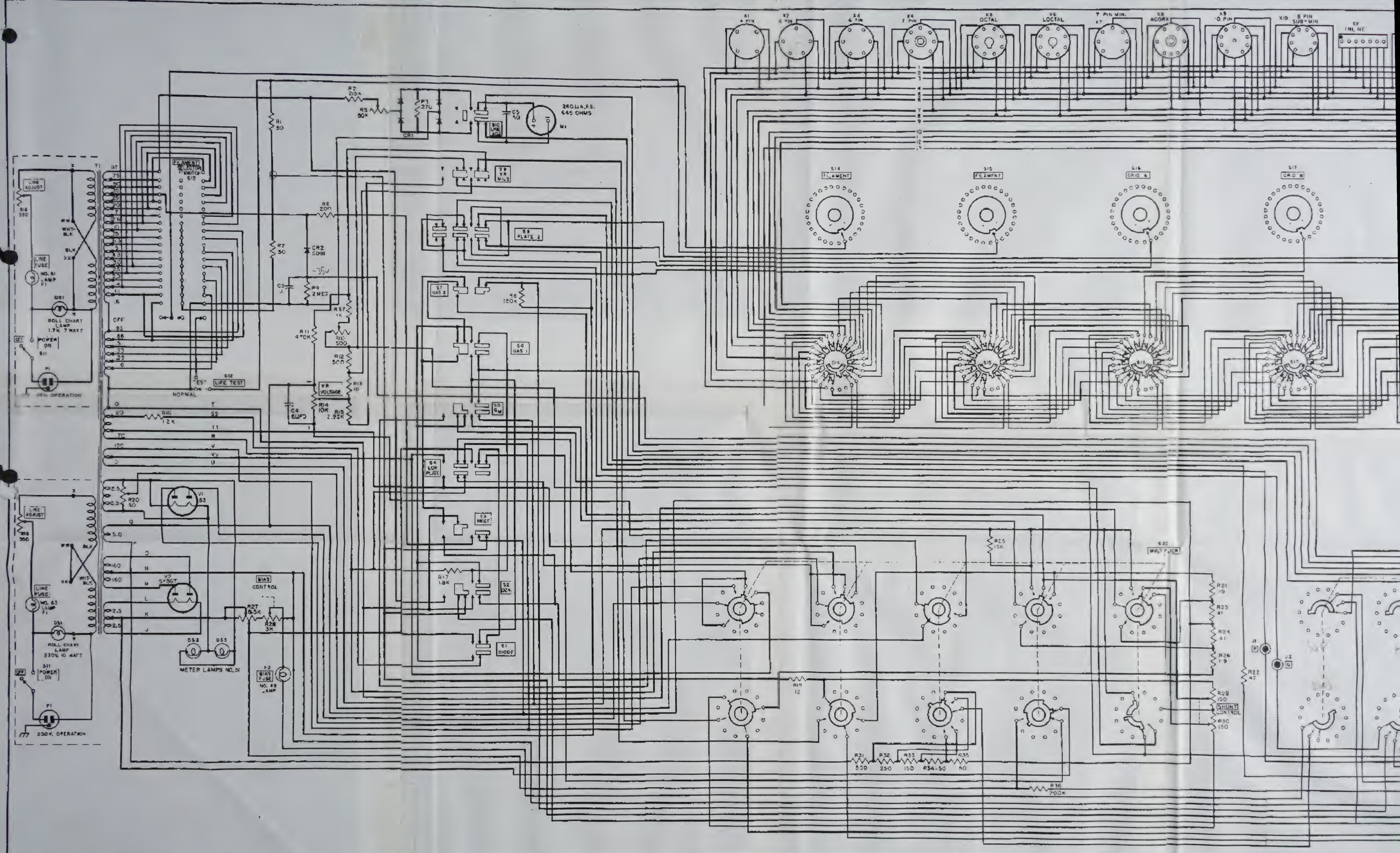
Reference designations have been assigned to identify all parts used in this instrument. An asterisk designates a part which should be replaced by authorized Hickok repair stations or factories. It is therefore recommended that the entire instrument be returned for repair if trouble exists with such a part.

In ordering parts, refer to the current parts price list for this instrument. Prices are subject to change without notice, and the minimum billing charge is $3.50.

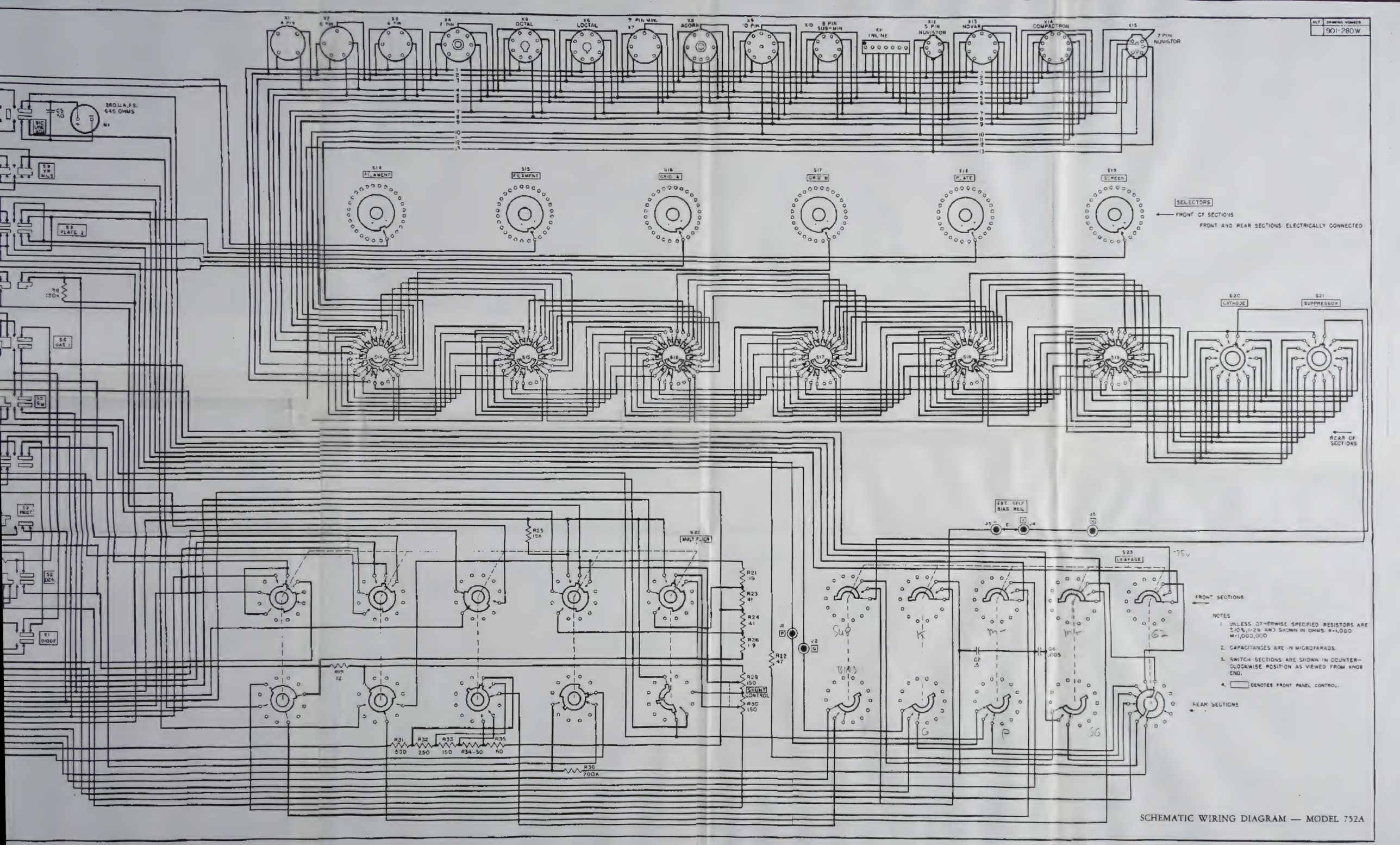
REF. DESIG.	NAME AND DESCRIPTION	HICKOK PART NO.
A1	DIAL ASSEMBLY: SHUNT	4160-66
A2	DIAL ASSEMBLY: BIAS	4160-67
A3	INDEX ROLLER ASSEMBLY	9600-42
C1	Not assigned	
C2	CAPACITOR, FIXED, PLASTIC: .5 uf, 200 volts	3105-206
C3	CAPACITOR, FIXED, PLASTIC: .1 uf, 200 volts	3105-210
C4	CAPACITOR, FIXED, ELECTROLYTIC: 8 uf, 350 volts	3085-68
C5	CAPACITOR, FIXED, ELECTROLYTIC: 50 uf, 6 volts	3085-45
C6	CAPACITOR, FIXED, CERAMIC: .005 uf, -0 +100%, disc type	3110-7
CR1	RECTIFIER: full wave, copper oxide	18150-42
CR2	CRYSTAL: SC91	3870-41
DS1	LAMP: Roll chart, 7 watt, 115 volts	12270-41
DS1	LAMP: #10S6/10, clear, 10W, 230V, used on roll chart for 230 V operation	12270-59
DS2, DS3	LAMP: #51 supplied with meter	
E1	BAR: shorting	2145-2
F1	LAMP: #81 auto tungsol, bayonet base (LINE FUSE) for 115 V operation	12270-2
F1	LAMP: #63 bayonet base for 230 V operation	12270-58
F2	LAMP: #49 pilot, bayonet base, (BIAS FUSE)	12270-17
M1	METER: Model 68	680-303
MP1	BUTTON: push, black	2920-7
MP2	BUTTON: push, red	2920-8
MP3	BUTTON: push, green	2920-13
MP4 thru MP15	KNOB: phenolic, black	11505-55
MP16	KNOB: machined, bar type, with white dot and pointer	11500-11
MP17 thru MP23	Same as MP1	
P1	CORD: AC line	3675-34
J1	JACK: pin plug type, red, (PLATE)	10300-1
J2	JACK: pin plug type, black, (GRID)	10300-2
J3, J4	BINDING POST	2360-51
J5	Same as J2, (CATHODE)	
R1	RESISTOR: 100 ohms, 10%, 10 watt, center tapped	18575-19
R2	RESISTOR, FIXED: 215K ohms, 1%, 1/2 watt	18537-61
R3	RESISTOR, FIXED: 270 ohms, 5%, 1/2 watt	18411-271
R4	Not assigned	
R5	POTENTIOMETER: 50K ohms, screw driver slot	16925-473
R6	RESISTOR, FIXED: 200 ohms, 1%, 2 watt	18540-5
R7	Same as R1	
R8	RESISTOR, FIXED: 180K ohms, 10%, 1/2 watt	18414-182
R9	RESISTOR, FIXED: 2 megohms, 5%, 1/2 watt	18415-201
R10	POTENTIOMETER: 500 ohms	16925-376
R11	RESISTOR, FIXED: 470K ohms, 1%, 1/2 watt	18537-66
R12	RESISTOR, FIXED: 470 ohms, 5%, 2 watt	18431-471
R13	RESISTOR, FIXED, FILM: 10 ohms, 1%, 1/2 watt	18537-217
R14	RHEOSTAT: 10,000 ohms, 50 watt	18750-26
R15	RESISTOR, FIXED: 2920 ohms, 1%, 1/2 watt	18537-67
R16	RESISTOR, FIXED: 1200 ohms, 10%, 1 watt	18422-122
R17	RESISTOR, FIXED: 1800 ohms, 10%, 10 watt	18575-12
R18	RHEOSTAT: 350 ohms, 25 watt	18750-37
R19	RESISTOR, FIXED: 12 ohms, 1%, 1/2 watt	18537-59
R20	POTENTIOMETER: 50 ohms	16925-271
R21	RESISTOR, FIXED: 119 ohms, 1%, 1/2 watt	18537-62
R22	RESISTOR, FIXED: 47 ohms, 10%, 1/2 watt	18410-472
R23, R24	RESISTOR, FIXED: 41 ohms, 1%, 1/2 watt	18537-60

REF. DESIG.	NAME AND DESCRIPTION	HICKOK PART NO.
R25	RESISTOR, FIXED: 15,000 ohms, 5%, 1 watt	18423-151
R26	Same as R21	
R27	RESISTOR: wire wound, 8500 ohms, 10%, 10 watt	18575-89
R28	POTENTIOMETER: adjusted, 3000 ohms	16926-5
R29, R30	POTENTIOMETER: 150-150 ohms, wire wound	16925-90
R31	RESISTOR, FIXED: 500 ohms, 1%, 1/2 watt	18537-58
R32	RESISTOR, FIXED: 250 ohms, 1%, 1/2 watt	18537-63
R33	RESISTOR, FIXED: 150 ohms, 1%, 1/2 watt	18537-64
R34, R35	RESISTOR, FIXED: 50 ohms, 1%, 1/2 watt	18537-65
R36	RESISTOR, FIXED: 200K ohms, 1%, 1/2 watt	18537-46
R37	RESISTOR, FIXED: 1000 ohms, 10%, 1/2 watt	18412-102
S1	SWITCH: push type, (DIODE)	19910-132
S2	Same as S1 (OZ4)	
S3	Same as S1 (RECT)	
S4	Same as S1 (LOW PLATE)	
S5	Same as S1 (Gm)	
S6	Same as S1 (GAS 1)	
S7	Same as S1 (GAS 2)	
S8	Same as S1 (PLATE 2)	
S9	Same as S1 (VR MILS)	
S10	Same as S1 (LINE ADJ)	
S11	SWITCH: toggle, S. P. S. T.	19911-9
S12	SWITCH: push button, D. P. D. T. (LIFE TEST)	19910-118
S13	SWITCH, ROTARY: 2 section, 3 pole, 20 position (FILAMENT)	19912-386
S14	SWITCH, ROTARY: 1 section, interlocking, 14 position (FILAMENT)	19912-477
S15	Same as S14 (FILAMENT)	
S16	Same as S14 (GRID A)	
S17	Same as S14 (GRID B)	
S18	Same as S14 (PLATE)	
S19	Same as S14 (SCREEN)	
S20, S21	SWITCH, ROTARY: 1 section, 14 position (CATHODE)	19912-469
S22	SWITCH, ROTARY: 5 section, 7 position (MULTIPLIER)	19912-374
S23	SWITCH, ROTARY: 5 section, 7 position (LEAKAGE)	19912-373
T1	TRANSFORMER: power	20800-304
V1	TUBE: #83	20875-28
V2	TUBE: #5Y3GT/G	20875-6
W1	LEAD ASSEMBLY:	12450-145
W2	LEAD ASSEMBLY:	12450-180
XDS1	SOCKET: bayonet, small	19350-1
XF1	SOCKET: bayonet, miniature	19350-203
XF2	SOCKET: candelabra	19350-2
XV1	SOCKET: wafer, octal	19350-156
XV2	SOCKET: wafer, 4 pin	19350-157
X1	SOCKET: 4 pin	19350-93
X2	SOCKET: 5 pin	19350-94
X3	SOCKET: 6 pin	19350-95
X4	SOCKET: 7 pin	19350-270
X5	SOCKET: 8 pin octal	19350-97
X6	SOCKET: 8 pin, loctal	19350-99
X7	SOCKET: 7 pin	19350-136
X8	SOCKET: acorn, 7 contact	19350-43
X9	SOCKET: 10 pin	19350-364
X10, X11	SOCKET: combination, 7-8 pin (sub-miniature and in-line)	19351-16
X12	SOCKET: Nuvistor, 5 pin	19350-336
X13	SOCKET: 9 pin	19350-367
X14	SOCKET: Compactron	19350-365
X15	SOCKET: Nuvistor, 7 pin	19350-382
	BOOKLET: Instructions	2490-582


X15
7 PIN
NUVISTOR
ALT
DRAWING NUMBER
901-280W
S19
SCREEN
SELECTORS
FRONT OF SECTIONS



X1 4 PIN
X2 5 PIN
X4 7 PIN
X5 OCTAL
X6 LOCTAL
7 PIN MIN.
X8 ACORN
X9 10 PIN
X10 8 PIN SUB-MIN
R2 215K
R5 50K
R3 270
CR1
C5 50
200 UA F.S. 645 OHMS
M1
R1 50
R7 50
T1
LINE ADJUST
R18 350
WHT-BLK
BLK
LINE FUSE
NO. 51 LAMP F1
DS1
ROLL CHART LAMP 1.7V, 7 WATT
OFF
POWER ON
S11
P1
115V OPERATION
FILAMENT SELECTOR SWITCH S13
R8 200
CR2 SD91
C3 .1
R9 2 MEG
R37 1K
R11 470K
R10 500
R12 500
R13 10
R14 10K
R15 2.92K
C4 8 UFD
VR VOLTAGE
S12 LIFE TEST
NORMAL
TEST
S9 VR MILS
S8 PLATE 2
S7 GAS 2
R6 120K
S6 GAS 1
S5 GM
S4 LOW PLATE
S3 RECT.
S2 OZ4
S1 DIODE
R17 1.8K
S14 FILAMENT
S15 FILAMENT
S16 GRID A
S17 GRID B
R16 1.2K
R20 50
V1 83
V2 5Y3GT
BIAS CONTROL
R27 8.5K
R28 3K
DS2
DS3
METER LAMPS NO. 51
F2 BIAS FUSE
NO. 48 LAMP
ROLL CHART LAMP 230V, 10 WATT
230V. OPERATION
R25 15K
S22 MULTIPLIER
R21 19
R23 41
R24 41
R26 19
R22 47
R29 150
SHUNT CONTROL
R30 150
R19 12
R31 500
R32 250
R33 150
R34-50
R35 50
R36 200K
J1
J2



SCHEMATIC WIRING DIAGRAM — MODEL 752A

OPERATING INSTRUCTIONS
AND
ORDERING INFORMATION

FOR THE

MODEL CA-4 ADAPTER

HICKOK

10514 DUPONT AVENUE • CLEVELAND 8, OHIO
2490-489
PRINTED U.S.A.

INSTRUCTIONS FOR USING THE MODEL CA-4 COMPACTRON ADAPTER

WITH A "CARDMATIC" TUBE TESTER

The Hickok Model CA-4 Compactron Adapter is used in conjunction with Hickok CARDMATIC and Roll-Chart tube testers to test Compactrons, Novars, 5 and 7-pin Nuvistors, and 10-pin header tubes.

The CA-4 Adapter consists of:

a) Eight (8) rotary switches which are used to select the pins of each individual element of the tube to be tested.

b) Five (5) tube sockets.

c) Three (3) jacks labeled "G", "P", and "K" which are used for connection to the tube top cap.

d) A test plug which is connected to the CA-4 by a cable. This test plug is inserted into the octal socket of the tube tester that is to be used with the CA-4. Table No. 1 lists the pin numbers of the test plug and the associated tube element switch.

The test data cards of the tube tester will have the normal information with the addition of an eight digit number in the lower right hand corner. The eight digit number is given in two series of four (4) digits. The first series pertains to the top row of four switches on the CA-4 (FILAMENT, FILAMENT, GRID A, and GRID B). The second series pertains to the lower row of four switches (PLATE, SCREEN, CATHODE, and SUPPRESSOR). All switch settings should be set from left to right according to the sequence given on the test card.

CAUTION

Before placing the test card into a CARDMATIC Tube Tester, set all eight of the tube element switches to the positions specified on the data card. This is important. Failure to observe this caution may short the tube tester power supplies. Always re-set the CA-4 selectors with no test card in the CARDMATIC switch.

The tube element switch settings on the adapter are connected in parallel with the pins of each tube socket mounted on the CA-4. Table No. 2 lists the switch and the associated pin number of the tube sockets.

The three jacks marked "G", "P", and "K" located on the left side of the adapter are internally connected to their respective element switch (grid, plate, and cathode). They are used for cap connection (test lead supplyed). Test cards for CARDMATIC tube testers marked "G" "P" or "K" immediately after the eight digit number indicate that the top cap of the tube under test is to be connected to that respective jack. Disregard the cap connector that is attached to the panel of the CARDMATIC tester when using the CA-4.

OCTAL PLUG PIN NUMBER	TUBE ELEMENT SWITCH
1	FILAMENT
2	FILAMENT
3	GRID A
4	GRID B
5	PLATE
6	SCREEN
7	CATHODE
8	SUPPRESSOR

Table No. 1

SWITCH SETTINGS	PIN NUMBERS
1	1
2	2
3	3
4	4
5	5
6	6
7	7
8	8
9	9
A	10
B	11
C	12
D	No Connection
0	No Connection

Table No. 2

INSTRUCTIONS FOR USING THE MODEL CA-4 COMPACTRON ADAPTER

WITH A ROLL-CHART TUBE TESTER

The Hickok Model CA-4 Compactron Adapter is used in conjunction with Hickok CARDMATIC and Roll-Chart tube testers to test Compactrons, Novars, 5 and 7-pin Nuvistors, and 10-pin header tubes.

The CA-4 Adapter consists of:

a) Eight (8) rotary switches which are used to select the pins of each individual element of the tube to be tested.

b) Five (5) tube sockets.

c) Three (3) jacks labeled "G", "P", and "K" which are used for connection to the tube top cap.

d) A test plug which is connected to the CA-4 by a cable. This test plug is inserted into the octal socket of the tube tester that is to be used with the CA-4. The following table lists the pin numbers of the test plug and the associated tube element switch.

OCTAL PLUG PIN NUMBER	TUBE ELEMENT SWITCH
1	FILAMENT
2	FILAMENT
3	GRID A
4	GRID B
5	PLATE
6	SCREEN
7	CATHODE
8	SUPPRESSOR

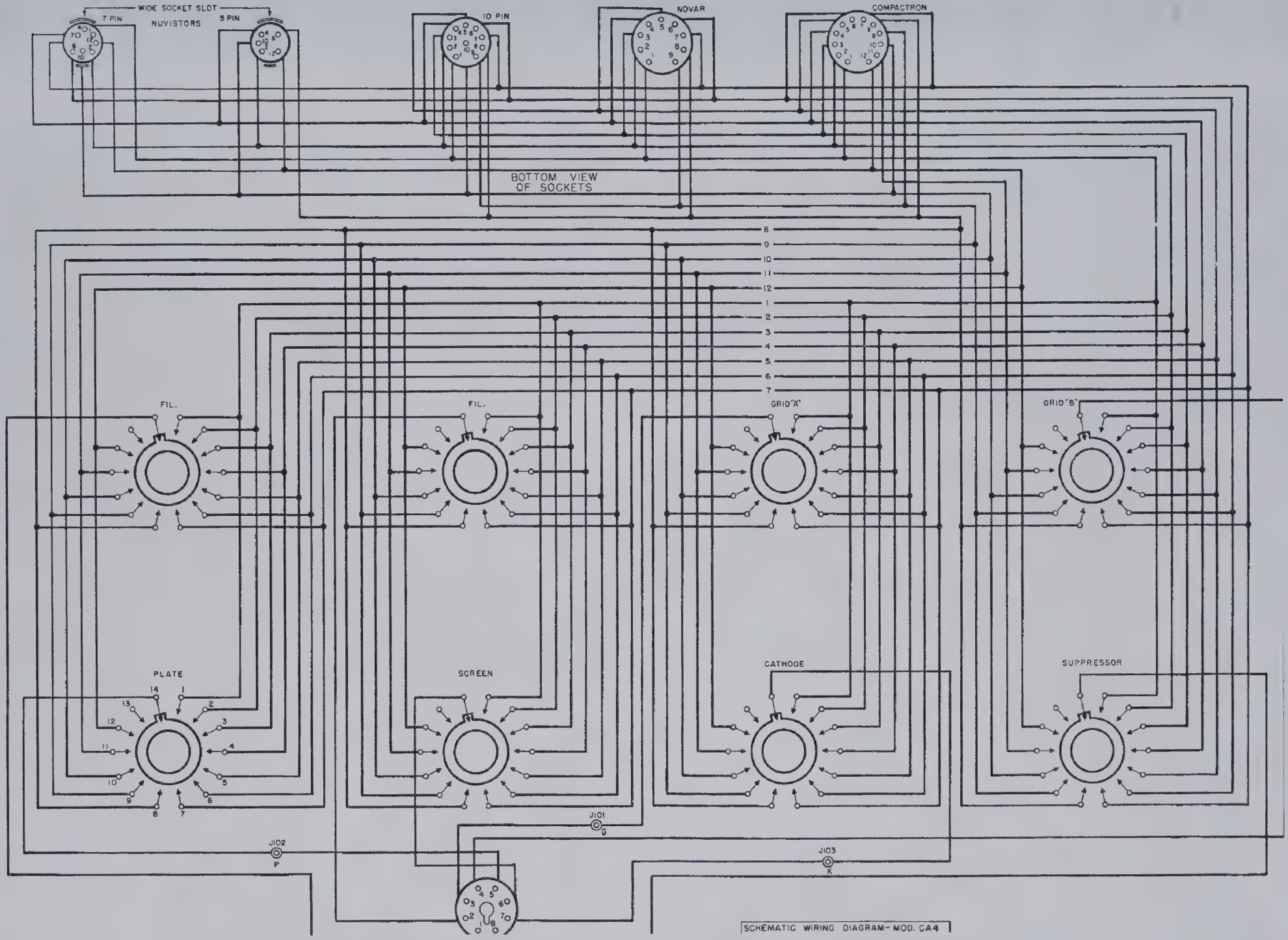
The tube element switch settings on the adapter are connected in parallel with the pins of each tube socket mounted on the CA-4. The following table lists the switch and the associated pin number of the tube sockets.

SWITCH SETTINGS	PIN NUMBERS
1	1
2	2
3	3
4	4
5	5
6	6
7	7
8	8
9	9
A	10
B	11
C	12
D	No Connection
0	No Connection

The three jacks marked "G", "P", and "K" located on the left side of the adapter are internally connected to their respective element switch (grid, plate, and cathode). They are used for cap connections (test lead supplied). The proper top cap connection is indicated in the NOTATIONS column of the chart on the following pages.

CAUTION

When using the CA-4 with a Roll-Chart tube tester set the element switches as specified before inserting the tube to be tested.


WIDE SOCKET SLOT
7 PIN
NUVISTORS
5 PIN
10 PIN
NOVAR
COMPACTRON
BOTTOM VIEW
OF SOCKETS
8
9
10
11
12
1
2
3
4
5
6
7
FIL.
FIL.
GRID "A"
GRID "B"
PLATE
SCREEN
CATHODE
SUPPRESSOR
J101
G
J102
P
J103
K
SCHEMATIC WIRING DIAGRAM- MOD. CA4

RCD 9-11-75
RC 52662-13

TEST DATA
MODEL 752 & 752A
TUBE TESTERS

THE HICKOK ELECTRICAL INSTRUMENT CO.
10514 DUPONT AVENUE • CLEVELAND, OHIO 44108

PHONE—(216) 541-8060 TWX—810-421-8286
PRINTED IN U.S.A.

3200-324

TUBE TYPE	FIL.	SELECTORS	BIAS	SHUNT	MULT.	PRESS.	MINIMUM MUT. COND.	NOTATIONS
OA2	OFF	0000–5020	—	—	VR	†S9	150V	*TEST. REGULATION—I VOLTS. FROM 1 TO 30 MA.
OA3/VR75	OFF	0000–5020	—	—	VR	†S9	75V	*TEST. REGULATION—I VOLTS. FROM 1 TO 30 MA.
OB2	OFF	0000–5020	—	—	VR	†S9	108V	*TEST. REGULATION—I VOLTS. FROM 1 TO 30 MA.
OB3/VR90	OFF	0000–5020	—	—	VR	†S9	90V	*TEST. REGULATION—I VOLTS. FROM 1 TO 30 MA.
OC2	OFF	0000–5020	—	—	VR	†S9	75V	*TEST. REGULATION—I VOLTS. FROM 1 TO 30 MA.
OC3/VR105	OFF	0000–5020	—	—	VR	†S9	105V	*TEST. REGULATION—I VOLTS. FROM 1 TO 40 MA.
OD3/VR150	OFF	0000–5020	—	—	VR	†S9	150V	*TEST. REGULATION—I VOLTS. FROM 1 TO 40 MA.
OE3/85A1	OFF	0000–2080	—	—	VR	†S9	85V	*TEST. REGULATION—I VOLTS. FROM 1 TO 5 MA.
OG3/85A2	OFF	0000–1020	—	—	VR	†S9	85V	*TEST. REGULATION—I VOLTS. FROM 1 TO 10 MA.
OZ4	OFF	0000–5380	0	65	SH	S2	650	SIGNAL DIODE. HOLD BUTTON DOWN FOR 1 SECOND.
1A3	1.4	7100–2030	0	0	SH	S1	400	
1AD2‡	1.4	1000–0000	0	53	SH	S6	400	Cap–P
1AD4	1.1	3540–1200	14	—	X4	S4	225	
1AG4	1.1	3540–1200	25	—	X1	S5	625	
1AH4	1.1	5340–1200	12	—	X1	S5	475	
1AK4	1.1	5340–1200	12	—	X1	S5	375	
1AU2	1.1	4500–9000	0	81	SH	S6	400	
1AY2	1.1	2700–0000	0	90	SH	S6	400	CAP–P. CONNECT FIL. PIN 5 OF OCTAL SOCKET PINS 2 & 7 WITH EXTERNAL LEADS
1B1	OFF	0000–1400	0	0	SH	—	—	SET LEAKAGE BUTTON TO POSITION 4. METER WILL DEFLECT FULL SCALE FOR A GOOD TUBE
1B3	1.1	7200–0000	0	90	SH	S6	400	Cap–P
1BC2	1.1	1500–0000	0	84	SH	S6	400	Cap–P
1BH2	1.1	3600–0000	0	84	SH	S6	400	CAP–P. CONNECT FIL LEADS TO OCTAL SOCKET PINS 2&8
1BK2	1.4	4200–0000	0	85	SH	S6	400	Cap–P
1BX2	1.4	1200–0000	0	80	SH	S6	400	Cap–P
1BY2‡	1.1	1000–0000	0	53	SH	S6	400	Cap–P
1DG3	1.1	8300–0000	0	57	SH	S6	400	Cap–P
1D-K29	1.1	1200–0000	0	—	X1	S3	400	TOP–P. CONNECT FIL LEADS TO PINS 1 AND 3
1G3	1.1	7200–0000	0	80	SH	S6	400	Cap–P
1H2	1.4	1200–0000	0	78	SH	S6	400	Cap–P
1J3	1.1	7200–0000	0	53	SH	S6	400	Cap–P
1K3	1.1	7200–0000	0	53	SH	S6	400	Cap–P
1N2	1.1	7200–0000	0	80	SH	S6	400	Cap–P
1R5	*1.4	1740–3062	10	—	X2	S4	425	
1R-K23	1.4	4200–0000	0	85	SH	S6	400	Cap–P
1S2A	1.4	4200–0000	0	85	SH	S6	400	Cap–P
1S4	1.4	1730–2400	23	—	X2	S4	475	
1S5	1.4	1760–5400	13	—	X1	S5	400	Pent. Sect.
1S5	1.4	1700–3000	0	15	SH	S1	400	Diode Sect.
1U4	1.4	1760–2300	14	—	X2	S5	275	
1V2	0.6	4500–9000	0	65	SH	S6	650	
1W5	1.1	4520–7800	0	—	X1	S5	450	

TUBE TYPE	FIL.	SELECTORS	BIAS	SHUNT	MULT.	PRESS.	MINIMUM MUT. COND.	NOTATIONS
1X2	1.1	1200–0000	0	80	SH	S6	400	Cap–P
2-01C	5.0	2700–5000	0	68	SH	S1	250	USE MICROD ADAPTER CODE NO. 1956-139
2AF4	2.5	4320–1050	16	—	X10	S4	400	
2AH2‡	2.5	1000–0000	0	79	SH	S6	400	Cap–P
2AS2‡	2.5	1000–0000	0	81	SH	S6	400	Cap–P
2AV2	2.0	4500–9000	0	65	SH	S6	650	
2AZ2	2.0	1200–0000	0	90	SH	S6	400	Cap–P
2BA2	2.0	4500–1000	0	88	SH	S6	650	
2BJ2	2.5	1200–0000	0	87	SH	S6	400	Cap–P
2BN4	2.0	4320–5010	16	—	X10	S5	425	
2BN4A	2.0	4320–5010	16	—	X10	S5	500	
2BU2‡	2.5	1000–0000	0	85	SH	S6	400	Cap–P
2C36	6.3	7260–5000	39	—	X4	S5	700	USE MICROD ADAPTER CODE NO. 1956-119
2C39	6.3	7260–5030	24	—	X20	S5	625	USE MICROD ADAPTER CODE NO. 1956-96
2C43	6.3	7200–0050	12	—	X10	S5	400	CAP–P RING–H
2C46	6.3	7200–0080	14	—	X4	S5	325	CAP–P RING–G
2C51	6.3	9173–6482	16	—	X10	S5	300	‡Dual Triode
2CN3A	2.0	2700–0000	0	87	SH	S6	400	Cap–P
2CW4‡	2.0	3140–2080	10	—	X10	S4	575	USE ADAPTER 5A-3, 1956-117
Model 752A:								
2CW4	2.0	AC40–2080	10	—	X10	S4	675	
2CY5	2.5	4310–5620	12	—	X4	—	625	HOLD DOWN S1 AND PRESS S5.
2D21	6.3	4310–6025	#	93	SH	S6	650	STRIKES ABOUT 3#
2DF4	2.5	4560–3100	23	—	X4	S5	700	
2DS4‡	2.0	3140–2080	9	—	X10	S4	600	USE ADAPTER 5A-3, 1956-117
Model 752A:								
2DS4	2.0	AC40–2080	9	—	X10	S4	600	
2DV4‡	2.0	AC60–1070	13	—	X10	S4	700	
2DX4	2.5	3420–1050	26	—	X10	S5	500	
2EA5	2.5	4310–5620	12	—	X10	S5	375	
2EG4‡	2.0	3140–2080	18	—	X4	S5	625	SET "LINE ADJUST" AT 115 ON 150 SCALE USE ADAPTER 5A-3, 1956-117
Model 752A:								
2EG4	2.0	AC40–2080	18	—	X4	S5	625	SET "LINE ADJUST" AT 115 ON 150 SCALE
2EN5	2.0	4300–7256	0	78	SH	S1	400	‡Dual Diode
2ER5	2.0	4320–5670	11	—	X10	S5	650	
2ES5	2.5	3420–5010	10	—	X10	S5	550	
2EV5	2.5	3410–5620	10	—	X10	S5	550	
2FH5	2.5	3420–5070	12	—	X10	S5	550	
2FQ5	2.5	4320–5076	14	—	X10	S5	650	
2FQ5A	2.5	4320–5070	14	—	X10	S5	750	
2FS5	2.5	4310–5670	10	—	X10	S5	500	
2FV6	2.5	4310–5672	14	—	X10	S5	375	
2GK6	2.5	3420–5076	14	—	X10	S5	750	
2GU5	2.5	4310–5620	9	—	X20	S5	650	
2GW5	2.5	4320–1050	19	—	X10	S5	300	
2HA5	2.0	4310–5076	17	—	X10	S5	475	
2HK5	2.5	4310–5020	17	—	X10	S5	575	
2HM5	2.5	4310–5076	17	—	X10	S5	475	
2HQ5	2.5	4310–5076	14	—	X20	S5	450	

TUBE TYPE	FIL.	SELECTORS	BIAS	SHUNT	MULT	PRESS	MINIMUM MUT COND	NOTATIONS
2T4	2.5	4320-1050	16	....	X10	S4	400	
3A2	3.0	1200-0000	0	85	SH	S6	650	Cap=P
3A3	3.0	7200-0000	0	75	SH	S6	650	Cap=P
3AF4A	3.0	4320-1050	16	....	X10	S4	400	
3AL5	3.0	4300-7215	0	78	SH	S1	400	‡Dual Diode
3AT2‡	3.0	1000-0000	0	86	SH	S6	400	Cap=P
5AU6	3.0	4310-5672	10	....	X4	S5	475	
3AV6	3.0	4310-7025	14	....	X4	S5	200	Triode Sect.
3AV6	3.0	4300-6527	0	30	SH	S1	400	‡Dual Diode
3AW2‡	3.0	2000-0000	0	87	SH	S6	400	Cap=P
3AW3	3.0	7200-0000	0	75	SH	S6	650	Cap=P
3B2	3.0	7200-0000	0	68	SH	S6	650	Cap=P
3B4	2.5	4530-7100	50	....	X2	S5	625	
3B24	3.0	4100-0000	0	90	SH	S6	650	CAP=P. 1ST. HALF OF FIL.
3B24	3.0	2100-0000	0	90	SH	S6	650	CAP=P. 2ND HALF OF FIL.
3B26	3.0	7200-0000	0	92	SH	S6	650	Cap=P
3B28	3.0	4100-0000	0	41	SH	S2	650	Cap=P
3B29	4.3	4100-0000	0	94	SH	S6	650	Cap=P
3BA6	3.0	4310-5672	0	....	X4	S5	500	
3BC5	3.0	4310-5620	11	....	X4	S5	675	
3BE6	3.0	4370-5621	0	....	X2	....	250	AMPL. SECT. HOLD DOWN S1 AND PRESS S5.
3BE6	3.0	4310-6027	20	....	X10	S5	400	Osc. Sect.
3BL2‡	3.0	1000-0000	0	88	SH	S6	400	Cap=P
3BM2‡	3.0	1000-0000	0	88	SH	S6	400	Cap=P
3BN2‡	3.0	1000-0000	0	68	SH	S6	650	Cap=P
3BN4	3.0	4320-5010	16	....	X10	S5	425	
3BN4A	3.0	4320-5010	16	....	X10	S5	500	
3BN6	3.0	4320-7516	0	....	X1	S5	500	Limiter Grid
3BN6	3.0	4360-7512	0	....	X1	S5	525	QUADRATURE GRID
3BS2‡	3.0	1000-0000	0	85	SH	S6	400	Cap=P
3BT2‡	3.0	2000-0000	0	87	SH	S6	400	Cap=P
3BU8	3.0	4570-8219	0	....	X2	....	175	PENTODE NO. 1. HOLD DOWN S1 AND PRESS S5.
3BU8	3.0	4570-3216	0	....	X2	....	175	PENTODE NO. 2. HOLD DOWN S1 AND PRESS S5.
3BW2‡	3.0	1000-0000	0	90	SH	S6	400	Cap=P
3BX6	3.0	4520-7819	10	....	X10	S5	400	
3BY6	3.0	4310-5627	12	....	X2	S5	375	Grid No. 1
3BY6	3.0	4370-5621	16	....	X2	....	150	GRID NO. 3. HOLD DOWN S1 AND PRESS S5.
3BZ6	3.0	4310-5627	10	....	X4	S5	700	
3C4	2.5	1760-2300	23	....	X2	S4	425	
3C24	6.3	4100-0000	0	....	X2	S5	275	G=SIDE PIN P=TOP PIN
3CA3	3.0	7200-0000	0.0	85	SH	S6	400	Cap=P
3CB6	3.0	4310-5627	10	....	X4	S5	700	
3CE5	3.0	4310-5620	10	....	X4	S5	700	
3CN3A	3.0	2700-0000	0	87	SH	S6	400	Cap=P
3CS6	3.0	4310-5627	16	....	X1	S5	300	Grid No. 1
3CS6	3.0	4370-5621	0	....	X1	S5	775	Grid No. 3
3CU3	3.0	2700-0000	0	88	SH	S6	400	Cap=P
3CV3	3.0	7200-0000	0	86	SH	S6	400	Cap=P
3CX3	3.0	3800-0000	0	87	SH	S6	400	Cap=P
3CY3	3.0	7200-0000	0	87	SH	S6	400	Cap=P
3CY5	3.0	4310-5620	12	....	X4	....	625	HOLD DOWN S1 AND PRESS S4
3CZ3	3.0	2700-0000	0	88	SH	S6	400	Cap=P
3D21A	12.6	7260-0480	32	....	X4	S6	800	Cap=P
3DA3	3.0	3800-0000	0	87	SH	S6	400	Cap=P
3DB3	3.0	7200-0000	0	75	SH	S6	650	Cap=P
3DC3	3.0	7200-0000	0	86	SH	S6	400	Cap=P
3DF3	3.0	3800-0000	0	87	SH	S6	400	Cap=P
3DG4	3.0	3100-7500	0	63	SH	S3	800	‡Dual Diode
3DH3	3.0	3800-0000	0	90	SH	S6	400	Cap=P
3DJ3	3.0	7200-0000	0	90	SH	S6	400	Cap=P
3DK6	3.0	4310-5627	10	....	X10	S5	400	
3DR3	3.0	3800-0000	0	90	SH	S6	400	Cap=P
3DS3	3.0	3800-0000	0	90	SH	S6	400	Cap=P
3DT6	3.0	4310-5627	12	....	X1	S5	375	Grid No. 1
3DT6	3.0	4370-5621	8	....	X1	S5	300	Grid No. 3
3DX4	3.0	3420-1050	26	....	X10	S5	500	
3DZ4	3.0	3420-1050	12	....	X10	S4	500	
3E29	6.3	5762-0340	15	....	X10	S5	475	RIGHT CAP=P USE HICKOK ADAPTER SA-9 CODE NO. [illegible]
3E29	6.3	5126-0340	15	....	X10	S5	475	Left Cap=P
3EA5	3.0	4310-5620	12	....	X10	S5	375	
3EH7	3.0	4520-7819	17	....	X4	S5	650	
3EJ7	3.0	4520-7819	10	....	X10	S5	500	
3ER5	3.0	4320-5670	11	....	X10	S5	650	
3EV5	3.0	3410-5620	10	....	X10	S5	550	
3FH5	3.0	3420-5070	12	....	X10	S5	550	
3FS5	3.0	4310-5670	10	....	X10	S5	500	
3GK5	3.0	3420-5076	14	....	X10	S6	750	
3GW5	3.0	4320-1050	19	....	X10	S5	300	
3HA5	2.5	4310-5076	17	....	X10	S5	475	
3HK5	3.0	4310-5020	17	....	X10	S5	680	
3HM5	3.0	4310-5076	17	....	X10	S5	475	
3HQ5	3.0	4310-5076	14	....	X20	S5	450	
3JC6	3.0	4520-7819	11	....	X10	S5	700	
3JD6	3.0	4520-7839	10	....	X10	....	440	HOLD DOWN S1 AND PRESS S4.
3JH6	3.0	4310-5627	12	....	X10	S5	375	
3KF8	3.0	4570-8219	10	....	X2	S5	225	Pent. No. 1
3KF8	3.0	4570-3216	10	....	X2	S5	225	Pent. No. 2
3KT6	3.0	4520-7819	9	....	X10	S5	750	
3V4	3.0	7160-2300	0	....	X4	....	300	HOLD DOWN S1 AND PRESS S5
4-65A	7.5	1740-0600	Test for Shorts Only.					CAP=P USE HICKOK ADAPTER SA-4 CODE NO. [illegible]
4AU6	4.3	4310-5672	10	....	X4	S5	475	
4AV6	4.3	4310-7025	14	....	X4	S5	200	Triode Sect.
4AV6	4.3	4300-6527	0	30	SH	S1	400	‡Dual Diode
4BC5	4.3	4310-5620	11	....	X4	S5	675	
4BC8	4.3	4572-6183	18	....	X10	S5	375	‡Dual Triode
4BN6	4.3	4320-7516	0	....	X1	S5	500	Limiter Grid
4BN6	4.3	4360-7512	0	....	X1	S5	525	QUADRATURE GRID
4BQ7A	4.3	4572-6183	15	....	X10	S5	500	‡Dual Triode
4BS8	4.3	4572-6183	16	....	X10	S5	450	‡Dual Triode

TUBE TYPE	FIL.	SELECTORS	BIAS	SHUNT	MULT.	PRESS	MINIMUM MUT. COND.	NOTATIONS
4BU8	4.3	4570-8219	0	....	X2	....	175	PENTODE NO. 1 HOLD DOWN S1 AND PRESS S6. PENTODE NO. 2 HOLD DOWN S1 AND PRESS S5.
4BU8	4.3	4570-3216	0	....	X2	....	175	
4BZ6	4.3	4310-5627	10	....	X4	S5	700	
4BZ7	4.3	4572-6183	17	....	X10	S5	425	‡Dual Triode
4CB6	4.3	4310-5627	10	....	X4	S5	700	
4CS6	4.3	4310-5627	16	....	X1	S5	300	Grid No. 1
4CS6	4.3	4370-5621	0	....	X1	S5	775	Grid No. 3
4CX250B	6.3	3750-0120	Test for Shorts Only.					ANODE COOLER-P. USE HICKOK ADAPTER CODE NO. HSR-100. HOLD DOWN S1 AND PRESS S5
4CY5	4.3	4310-5620	12	....	X4	....	625	
4DE6	4.3	4310-5627	10	....	X4	S5	700	
4DK8	4.3	4310-5627	10	....	X10	S5	400	
4DT6	4.3	4310-5627	12	....	X1	S5	375	Grid No. 1
4DT6	4.3	4370-5621	8	....	X1	S5	300	Grid No. 3
4EH7	4.3	4520-7819	17	....	X4	S5	650	
4EJ7	4.3	4520-7819	10	....	X10	S5	500	
4ES8	4.3	4572-6183	22	....	X10	S5	475	‡Dual Triode
4EW6	4.3	4310-5627	11	....	X4	S5	775	
4GK5	4.3	4320-5076	14	....	X10	S5	750	
4GM6	4.3	4310-5627	10	....	X10	S5	575	
4GS8	4.3	4570-8219	0	....	X1	....	350	PENT. NO. 1. HOLD DOWN S1 AND PRESS S6 PENT. NO. 2. HOLD DOWN S1 AND PRESS S5
4GS8	4.3	4570-3216	0	....	X1	....	350	
4GX7	4.3	4520-6710	11	....	X10	S5	450	Pent. Sect.
4GX7	4.3	4590-8010	15	....	X10	S5	600	Triode Sect.
4GZ5	4.3	4320-7610	21	....	X4	S5	750	
4HA5	4.3	4310-5076	17	....	X10	S5	475	
4HA7‡	4.3	1C90-A040	22	....	X4	S5	475	Triode No. 1
4HA7	4.3	1CB0-2030	14	....	X4	S5	200	Triode No. 2
4HC7‡	4.3	1C90-A040	14	....	X10	S5	300	Triode No. 1
4HC7	4.3	1CB0-2030	12	....	X1	S5	550	Triode No. 2
4HK5	4.3	4310-5020	17	....	X10	S5	575	
4HM5	4.3	4310-5076	17	....	X10	S5	475	
4HM6	4.3	4520-7819	10	....	X10	S5	625	
4HQ5	4.3	4310-5076	14	....	X20	S5	450	
4HS8	4.3	4570-8219	10	....	X1	S5	325	Pent. No. 1
4HS8	4.3	4570-3216	10	....	X1	S5	326	Pent. No. 2
4HT6	4.3	4520-7819	10	....	X10	S5	475	
4JC6	4.3	4520-7819	11	....	X10	S5	700	
4JD6	4.3	4520-7839	10	....	X10	....	450	HOLD DOWN S1 AND PRESS S2.
4JH6	4.3	4310-5627	12	....	X10	S5	375	
4JK6	4.3	3410-5627	14	....	X20	S5	625	
4JL6	4.3	3410-5627	20	....	X10	S5	500	
4KE8	4.3	4520-6370	9	....	X10	S5	550	Pent. Sect.
4KE8	4.3	4590-1080	17	....	X10	S5	475	Triode Sect.
4KF8	4.3	4570-8219	10	....	X2	S5	225	Pent. No. 1
4KF8	4.3	4570-3216	10	....	X2	S5	225	Pent. No. 2
4KT6	4.3	4520-7819	9	....	X10	S5	750	
4LJ8	4.3	4590-6780	10	....	X10	S5	625	Pent. Sect.
4LJ8	4.3	4510-2030	10	....	X10	S5	500	Triode Sect.
4LU6	4.3	4310-5627	10	....	X10	S5	375	

TUBE TYPE	FIL.	SELECTORS	BIAS	SHUNT	MULT.	PRESS	MINIMUM MUT. COND.	NOTATIONS
4MK8	4.3	4570-8219	0	....	X2	....	175	PENT. NO. 1. HOLD DOWN S1 AND PRESS S5 PENT. NO. 2. HOLD DOWN S1 AND PRESS S5
4MK8	4.3	4570-3216	0	....	X2	....	175	
4X150A	6.3	3750-0120	Test for Shorts Only.					ANODE COOLER-P. USE HICKOK ADAPTER CODE NO. HSR-100.
4X250B	6.3	3750-0120	Test for Shorts Only.					
5AM8	5.0	4520-6319	10	....	X4	S5	550	Pent. Sect.
5AM8	5.0	4500-8070	0	78	SH	S1	400	Diode Sect.
5AN8	5.0	4580-6791	10	....	X4	S5	700	Pent. Sect.
5AN8	5.0	4520-1736	24	....	X4	S5	500	Triode Sect.
5AQ5	5.0	4310-5620	18	....	X4	S5	575	
5AR4	5.0	8200-6400	0	68	SH	S3	650	‡Dual Diode
5AS8	5.0	4520-9137	10	....	X4	S5	700	Pent. Sect.
5AS8	5.0	4500-6087	0	78	SH	S1	400	Diode Sect.
5AT8	5.0	4590-6738	10	....	X4	S5	725	Pent. Sect.
5AT8	5.0	4510-2038	15	....	X10	S5	350	Triode Sect.
5AU4	7.5	8200-6000	0	51	SH	S3	650	Plate No. 1
5AU4	7.5	8200-4000	0	45	SH	S3	650	Plate No. 2
5AV8	5.0	4560-9870	10	....	X4	S5	700	Pent. Sect.
5AV8	5.0	4520-3010	24	....	X4	S5	500	Triode Sect.
5B8	5.0	4560-9871	15	....	X4	S5	700	Pent. Sect.
5B8	5.0	4520-3019	24	....	X4	S5	500	Triode Sect.
5BC3‡	5.0	1300-9000	0	40	SH	S3	650	PLATE NO. 1 USE ADAPTER SA-4, ITEM 14
5BC3	5.0	1300-5000	0	35	SH	S3	650	PLATE NO. 2
Model 752A: No Adapter Required.								
5BE8	5.0	4590-6783	12	....	X4	S5	475	Pent. Sect.
5BE8	5.0	4510-2030	10	....	X10	S5	525	Triode Sect.
5BK7A	5.0	4572-6183	10	....	X10	S5	525	‡Dual Triode
5BQ7A	5.0	4572-6183	15	....	X10	S5	400	‡Dual Triode
5BR8	5.0	4590-6780	12	....	X4	S5	475	Pent. Sect.
5BR8	5.0	4510-2030	10	....	X10	S5	525	Triode Sect.
5BT8	5.0	4580-6790	10	....	X4	S5	700	Pent. Sect.
5BT8	5.0	4500-1230	0	68	SH	S1	400	‡Dual Diode
5BW8	5.0	4560-9870	12	....	X4	S5	475	Pent. Sect.
5BW8	5.0	4500-3120	0	78	SH	S1	400	‡Dual Diode
5CG8	5.0	4590-6780	10	....	X4	S5	725	Pent. Sect.
5CG8	5.0	4510-2030	15	....	X10	S5	350	Triode Sect.
5CL8	5.0	4590-6780	10	....	X4	S5	550	Tetrode Sect.
5CL8	5.0	4510-2030	12	....	X10	S5	425	Triode Sect.
5CM8	5.0	4520-6730	10	....	X4	S5	700	Pent. Sect.
5CM8	5.0	4590-1080	12	....	X2	S5	475	Triode Sect.
5CQ8	5.0	4520-6370	10	....	X4	S5	525	Tetrode Sect.
5CQ8	5.0	4590-1080	11	....	X10	S5	425	Triode Sect.
5CZ5	5.0	4530-9170	10	....	X4	S5	700	
5DH8	5.0	4590-6783	10	....	X4	S5	775	Pent. Sect.
5DH8	5.0	4510-2030	14	....	X4	S5	550	Triode Sect.
5DJ4	5.0	8200-6000	0	35	SH	S3	650	Plate No. 1
5DJ4	5.0	8200-4000	0	30	SH	S3	650	Plate No. 2
5EA8	5.0	4520-6370	9	....	X4	S5	550	Pent. Sect.
5EA8	5.0	4590-1080	10	....	X10	S5	525	Triode Sect.
6ES8	5.0	4572-6183	22	....	X10	S5	475	‡Dual Triode

TUBE TYPE	FIL	SELECTORS	BIAS	SHUNT	MULT	PRESS	MINIMUM MUT COND	NOTATIONS
5EU8	5.0	4570–1980	9	—	X4	S5	550	Pent. Sect.
5EU8	5.0	4520–3060	10	—	X10	S5	525	Triode Sect.
5EW6	6.0	4310–5627	11	—	X4	S5	775	
5FG7	5.0	4590–6780	10	—	X4	S5	575	Pent. Sect.
5FG7	5.0	4510–2030	14	—	X10	S5	475	Triode Sect.
5FV8	5.0	4590–6780	10	—	X4	S5	550	Pent. Sect.
5FV8	5.0	4510–2030	15	—	X10	S5	450	Triode Sect.
5GH8	5.0	4520–6370	11	—	X4	S5	625	Pent. Sect.
5GH8	5.0	4590–1080	13	—	X10	S5	625	Triode Sect.
5GM6	5.0	4310–5627	10	—	X10	S5	575	
5GS7	5.0	4590–6780	10	—	X10	S5	500	Pent. Sect.
5GS7	5.0	4510–2030	33	—	X10	S5	300	Triode Sect.
5GX6	5.0	3410–5627	13	—	X2	S5	575	
5GX7	5.0	4520–6710	11	—	X10	S5	450	Pent. Sect.
5GX7	5.0	4590–8010	15	—	X10	S5	600	Triode Sect.
5HA7‡	5.0	1C90–A040	22	—	X4	S5	475	
5HA7	5.0	1C80–2030	14	—	X4	S5	200	
5HB7	6.0	4620–6710	12	—	X4	S5	675	Pent. Sect.
5HB7	5.0	4590–8010	12	—	X20	S5	300	Triode Sect.
5HC7‡	6.0	1C90–A040	14	—	X10	S5	300	Triode No. 1
5HC7	5.0	1C80–2030	12	—	X1	S5	550	Triode No. 2
5HG8	5.0	4620–8930	11	—	X10	S5	475	Pent. Sect.
5HG8	5.0	4560–7030	33	—	X10	S5	350	Triode Sect.
5HZ6	5.0	3410–5627	10	—	X2	S5	450	
6J6	5.0	4356–2170	17	—	X10	S5	325	‡Dual Triode
5JK6	6.0	3410–5627	14	—	X20	S5	625	
5JL6	5.0	3410–5627	20	—	X10	S5	500	
5KD8	5.0	4520–6370	6	—	X4	S5	700	Pent. Sect.
5KD8	6.0	4590–1080	17	—	X10	S5	600	Triode Sect.
5KE8	6.0	4620–6370	9	—	X10	S5	550	Pent. Sect.
5KE8	6.0	4590–1080	17	—	X10	S5	475	Triode Sect.
5KZ8	5.0	4520–6730	14	—	X4	S5	625	Pent. Sect.
5KZ8	6.0	4590–1080	18	—	X10	S5	400	Triode Sect.
5LJ8	5.0	4590–6780	10	—	X10	S5	625	Pent. Sect.
5LJ8	5.0	4510–2030	10	—	X10	S5	500	Triode Sect.
5MB8	5.0	4590–6780	8	—	X10	S5	550	Pent. Sect.
5MB8	5.0	4510–2030	12	—	X10	S5	525	Triode Sect.
5MQ8	5.0	4520–6370	10	—	X10	S5	450	Pent. Sect.
5MQ8	5.0	4590–1080	10	—	X10	S5	600	Triode Sect.
5R4	5.0	8200–6000	0	20	SH	S3	650	Plate No. 1
5R4	5.0	8200–4000	0	15	SH	S3	650	Plate No. 2
5T8	5.0	4580–9076	15	—	X4	S5	175	Triode Sect.
5T8	6.0	4500–6273	0	78	SH	S1	400	‡Dual Diode
5T8	5.0	4500–1078	0	78	SH	S1	400	Diode No. 3
6U4	5.0	8200–6000	0	35	SH	S3	650	Plate No. 1
6U4	5.0	8200–4000	0	30	SH	S3	650	Plate No. 2
5U8	5.0	4520–6370	12	—	X4	S5	475	Pent. Sect.
5U8	6.0	4690–1080	10	—	X10	S5	525	Triode Sect.
5U9‡	6.3	5630–7824	14	—	X10	S5	375	PENT. SECT. USE ADAPTER SA-11, 1000-177.
5U9‡	6.3	56A0–9010	30	—	X10	S5	300	Triode Sect.

TUBE TYPE	FIL	SELECTORS	BIAS	SHUNT	MULT	PRESS	MINIMUM MUT COND	NOTATIONS
5V3	6.3	8200–6000	0	45	SH	S3	650	Plate No. 1
5V3	6.3	8200–4000	0	38	SH	S3	650	Plate No. 2
5V4	5.0	8200–6400	0	60	SH	S3	650	‡Dual Diode
5V6	5.0	7250–3480	18	—	X4	S5	575	
5V9‡	5.0	5630–7412	15	—	X1	—	700	PENT. SECT. HOLD DOWN S1 AND PRESS S5. USE ADAPTER SA-11, 1000-177.
5V9	5.0	5680–A090	23	—	X4	S5	650	Triode Sect.
5X8	5.0	4570–9861	10	—	X4	S5	725	Pent. Sect.
5X8	5.0	4520–3061	15	—	X10	S5	350	Triode Sect.
5 9‡	6.3	5630–7824	15	—	X10	S5	375	PENT. SECT. USE ADAPTER SA-11, 1000-177.
5X9	6.3	56A0–9010	14	—	X4	S5	750	Triode Sect.
5Y3	5.0	8200–6000	0	36	SH	S3	400	Plate No. 1
5Y3	5.0	8200–4000	0	27	SH	S3	400	Plate No. 2
6AB4	6.3	4360–1070	14	—	X4	S5	625	
6AB9‡	6.3	5690–78A0	16	—	X10	S5	375	TETRODE NO. 1. USE ADAPTER SA-11, 1000-177.
6AB9	6.3	5630–1240	16	—	X10	S5	375	Tetrode No. 2
6AC7	6.3	7240–8653	13	—	X10	S5	375	
6AC9‡	6.3	1C90–BA87	11	—	X10	S5	450	Pent. Sect.
6AC9	6.3	1C00–3040	0	87	SH	S1	400	Diode No. 1
6AC9	6.3	1C00–2030	0	87	SH	S1	400	Diode No. 2
6AC10‡	6.3	1C90–A040	11	—	X10	S5	450	Triode No. 1
6AC10	6.3	1C7B–5263	11	—	X10	S5	460	‡Dual Triode
6AD10‡	6.3	1C30–7625	17	—	X2	S5	550	Pent. No. 1
6AD10	6.3	1C80–8A90	10	—	X10	S5	450	Pent. No. 2
6AF3	6.3	4500–2000	0	50	SH	S3	650	CONNECT CAP TO EXT. SELF BIAS RES. [illegible]
Model 752A:								
6AF4	6.3	4320–1050	16	—	X10	S4	400	
6AF9‡	6.3	5680–A970	16	—	X10	S5	650	PENT. NO. 1. USE ADAPTER SA-11, 1000-177.
6AF9	6.3	5610–4320	12	—	X10	S5	450	Pent. No. 2
6AF11‡	6.3	1C80–2A90	12	—	X10	S5	450	Pent. Sect.
6AF11	6.3	1C60–B050	14	—	X4	S5	700	Triode No. 1
6AF11	6.3	1C30–4070	11	—	X4	S5	500	Triode No. 2
6AG5	6.3	4310–5620	10	—	X4	S5	625	
6AG7	6.3	7240–8651	12	—	X10	S5	475	
6AG9‡	6.3	1C80–2A94	14	—	X10	S5	625	Pent. Sect.
6AG9	6.3	1C50–7060	19	—	X4	S5	725	Triode Sect.
6AG11‡	6.3	1C85–7694	12	—	X10	S5	525	‡Dual Triode
6AG11	6.3	1C00–A382	0	80	SH	S1	400	‡Dual Diode
6AH9‡	6.3	1C50–8879	15	—	X10	S5	750	Pent. Sect.
6AH9	6.3	1C20–3040	29	—	X4	S5	625	Triode Sect.
6AK5	6.3	4310–5620	10	—	X4	S5	675	
6AK6	6.3	4310–5672	17	—	X2	S5	725	
6AK9‡	6.3	1C80–5970	35	—	X4	S5	850	Pent. Sect.
6AK9	6.3	1CA0–B070	17	—	X4	S5	575	Triode No. 1
6AK9	6.3	1C30–2070	30	—	X2	S5	625	Triode No. 2
6AK10‡	6.3	1C90–A040	17	—	X4	S5	725	Triode No. 1
6AK10	6.3	1C70–5060	17	—	X4	S5	725	Triode No. 2
6AK10	6.3	1C80–2030	17	—	X4	S5	725	Triode No. 3
6AL3	6.3	4500–9020	0	56	SH	S3	800	CONNECT CAP TO PIN 3 OF OCTAL SOCKET
6AL5	6.3	4300–7215	0	78	SH	S1	400	‡Dual Diode

TUBE TYPE	FIL.	SELECTORS	BIAS	SHUNT	MULT.	PRESS.	MINIMUM MUT. COND.	NOTATIONS
6AL9‡	6.3	1C80-2A94	5	—	X10	S5	690	Pent. Sect.
6AL9	6.3	1C50-7060	14	—	X10	S5	395	Triode Sect.
6AL11‡	6.3	1C80-BA90	19	—	X10	S5	400	Pent. No. 1
6AL11	6.3	1C30-6724	22	—	X2	S5	300	Pent. No. 2
6AM5	6.3	3410-5720	26	—	X4	S5	400	
6AM8‡	6.3	4520-6319	10	—	X4	S5	550	Pent. Sect.
6AM8	6.3	4500-8070	0	78	SH	S1	400	Diode Sect.
6AN4	6.3	4320-1050	13	—	X10	S5	475	
6AN5	6.3	4310-5670	7	—	X10	—	425	HOLD DOWN S1 AND PRESS S5
6AN8‡	6.3	4580-6791	10	—	X4	S5	700	Pent. Sect.
6AN8	6.3	4520-1736	24	—	X4	S5	525	Triode Sect.
6AQ5	6.3	4310-5620	18	—	X4	S5	575	
6AR11‡	6.3	1CA0-8987	5	—	X10	S5	650	Pent. No. 1
6AR11	6.3	1C80-2364	5	—	X10	S5	650	Pent. No. 2
6AS6	6.3	4310-5627	0	—	X2	S5	550	
6AS7	7.5	7841-5263	55	—	X4	S4	625	‡Dual Triode
6AS8‡	6.3	4520-9137	10	—	X4	S5	700	Pent. Sect.
6AS8	6.3	4500-5087	0	78	SH	S1	400	Diode Sect.
6AS11‡	6.3	1C80-2A90	15	—	X10	S5	325	Pent. Sect.
6AS11	6.3	1C80-8050	11	—	X10	S5	500	Triode No. 1
6AS11	6.3	1C30-4070	16	—	X4	S5	600	Triode No. 2
6AT6	6.3	4310-7020	15	—	X4	S5	175	Triode Sect.
6AT6	6.3	4300-6520	0	30	SH	S1	400	‡Dual Diode
6AT8‡	6.3	4590-6738	10	—	X4	S5	725	Pent. Sect.
6AT8	6.3	4510-2038	15	—	X10	S5	350	Triode Sect.
6AU4	6.3	7800-5030	0	58	SH	S3	650	
6AU5	6.3	7210-5830	18	—	X10	S4	350	
6AU6	6.3	4310-5672	10	—	X4	S5	475	
6AU8‡	6.3	4570-9860	10	—	X10	S5	375	Pent. Sect.
6AU8	6.3	4520-3010	13	—	X10	S5	300	Triode Sect.
6AV6‡	6.3	4310-7025	14	—	X4	S5	200	Triode Sect.
6AV6	6.3	4300-6527	0	30	SH	S1	400	‡Dual Diode
6AV11‡	6.3	1C97-A546	23	—	X2	S5	750	‡TRIODES NO. 1 & NO. 2
6AV11	6.3	1C80-2030	23	—	X2	S5	750	Triode No. 3
6AW8‡	6.3	4570-9863	14	—	X10	S5	475	Pent. Sect.
6AW8	6.3	4520-3019	13	—	X10	S5	250	Triode Sect.
6AX3‡	6.3	1C00-4070	0	40	SH	S3	650	
6AX4	6.3	7800-5030	0	40	SH	S3	650	
6AX5	6.3	7200-5380	0	40	SH	S3	400	‡Dual Diode
6AY3‡	6.3	4500-2090	0	52	SH	S3	650	USE ADAPTER SA-4, 1500-144
Model 752A:		No Adapter Required.						
6AY11‡	6.3	1C85-7694	13	—	X1	S5	650	‡Triode Sect.
6AY11	6.3	1C00-A382	0	78	SH	S1	400	‡Diode Sect.
6AZ8‡	6.3	4560-1230	10	—	X4	S5	625	Pent. Sect.
6AZ8	6.3	4590-8070	24	—	X4	S5	500	Triode Sect.
6B10‡	6.3	1C53-6472	23	—	X4	S5	475	‡Dual Triode
6B10	6.3	1C00-A890	0	73	SH	S1	400	‡Dual Diode
6BA3‡	6.3	4500-2080	0	57	SH	S3	650	USE ADAPTER SA-4, 1500-144
Model 752A:		No Adapter Required.						
6BA5	6.3	3610-5780	18	—	X4	S5	325	
6BA6	6.3	4310-5672	0	—	X4	S5	500	
6BA7‡	6.3	4570-9132	0	—	X2	—	225	AMPL. SECT. HOLD S1 AND PRESS S5
6BA7	6.3	4520-1037	16	—	X10	S5	500	Osc. Sect.
6BA8‡	6.3	4570-9860	10	—	X10	S5	375	Pent. Sect.
6BA8	6.3	4520-3010	29	—	X4	S5	425	Triode Sect.
6BA11‡	6.3	1C40-6387	10	—	X1	S5	325	Pent. No. 1
6BA11	6.3	1C40-2385	10	—	X1	S5	325	Pent. No. 2
6BA11	6.3	1C90-B0A0	30	—	X2	S5	550	Triode Sect.
6BC4	6.3	4520-1060	14	—	X20	S5	300	
6BC5	6.3	4310-5620	11	—	X4	S5	675	
6BC7‡	6.3	4500-8697	0	82	SH	S1	400	‡Dual Diode
6BC7	6.3	4500-2010	0	82	SH	S1	400	Diode No. 3
6BC8	6.3	4572-6183	18	—	X10	S5	375	‡Dual Triode
6BD4	6.3	7200-5010	0	25	SH	S1	400	Cap-P
6BD11‡	6.3	1C80-2A90	15	—	X10	S5	450	Pent. Sect.
6BD11	6.3	1C60-B050	14	—	X4	S5	800	Triode No. 1
6BD11	6.3	1C30-4070	14	—	X4	S5	700	Triode No. 2
6BE3‡	6.3	1C00-A070	0	58	SH	S3	650	
6BE6‡	6.3	4370-5621	0	—	X2	—	250	AMPL. SECT. HOLD S1 AND PRESS S5
6BE6	6.3	4310-6027	20	—	X10	S5	400	Osc. Sect.
6BF11‡	6.3	1C80-BA90	30	—	X10	S5	375	Pent. No. 1
6BF11	6.3	1C30-7625	17	—	X2	S5	200	Pent. No. 2
6BH3‡	6.3	4500-2090	0	52	SH	S3	650	USE ADAPTER SA-4, 1500-144
Model 752A:		No Adapter Required.						
6BH6	6.3	4310-5627	10	—	X4	S5	425	
6BH8‡	6.3	4570-9860	8	—	X10	S5	375	Pent. Sect.
6BH8	6.3	4520-3010	26	—	X4	S5	500	Triode Sect.
6BH11‡	6.3	1C80-A980	10	—	X10	S5	350	Pent. Sect.
6BH11	6.3	1C64-7352	15	—	X10	S5	550	‡Dual Triode
6BJ3‡	6.3	1C00-A070	0	60	SH	S3	650	
6BJ7‡	6.3	4500-8697	0	80	SH	S1	400	‡Dual Diode
6BJ7	6.3	4500-2013	0	80	SH	S1	400	Diode No. 3
6BJ8‡	6.3	4580-7090	26	—	X4	S5	425	Triode Sect.
6BJ8	6.3	4500-6132	0	78	SH	S1	400	‡Dual Diode
6BK4	6.3	7200-5010	0	65	SH	S1	500	Cap-G
6BK7	6.3	4572-6183	10	—	X10	S5	625	‡Dual Triode
6BK11‡	6.3	1C90-A040	21	—	X2	S5	250	Triode No. 1
6BK11	6.3	1C78-5263	20	—	X2	S5	200	‡Dual Triode
6BL7	6.3	7841-5263	23	—	X10	S5	425	‡Dual Triode
6BL8‡	6.3	4520-6371	12	—	X4	S5	625	Pent. Sect.
6BL8	6.3	4590-1086	26	—	X4	S5	675	Triode Sect.
6BM8‡	6.3	4530-6720	26	—	X4	S5	625	Pent. Sect.
6BM8	6.3	4510-9080	0	—	X2	S5	775	Triode Sect.
6BN4	6.3	4320-5010	16	—	X10	S5	425	
6BN4A	6.3	4320-5010	16	—	X10	S5	500	Limiter Grid
6BN6‡	6.3	4320-7516	0	—	X1	S5	525	GRADUATING END
6BN6	6.3	4360-7512	0	—	X4	S5	400	Triode Sect.
6BN8‡	6.3	4580-7090	15	—	SH	S1	400	‡Dual Diode
6BN8	6.3	4500-6132	0	78	X10	S5	475	Pent. No. 1
6BN11‡	6.3	1C70-B98A	10	—	X10	S5	475	Pent. No. 2
6BN11	6.3	1C30-5426	10	—	X10	S5	475	
6BQ5	6.3	4520-7930	14	—	X10	S5	475	

TUBE TYPE	FIL.	SELECTORS	BIAS	SHUNT	MULT.	PRESS.	MINIMUM MUT. COND.	NOTATIONS
6BQ6	6.3	7250-0480	28	—	X10	S4	350	Cap-P
6BQ7A	6.3	4572-6183	15	—	X10	S5	400	‡Dual Triode
6BR8	6.3	4590-6780	12	—	X4	S5	475	Pent. Sect.
6BR8	6.3	4510-2030	10	—	X10	S5	525	Triode Sect.
6BS3‡	6.3	4500-2090	0	60	SH	S3	400	USE ADAPTER SA-4, [illegible]
Model 752A:		No Adapter Required.						
6BU8	6.3	4570-8219	0	—	X2	—	175	PENT. NO. 1, HOLD DOWN S1 AND PRESS S5
6BU8	6.3	4570-3216	0	—	X2	—	175	PENT. NO. 2, HOLD DOWN S1 AND PRESS S5
6BV11‡	6.3	1C70-A98B	13	—	X4	S5	400	Pent. No.1
6BV11	6.3	1C60-3452	13	—	X4	S5	400	Pent. No.2
6BW3‡	6.3	1C00-4070	0	49	SH	S3	650	
6BW8	6.3	4560-9870	12	—	X4	S5	475	Pent. Sect.
6BW8	6.3	4500-3120	0	78	SH	S1	400	‡Dual Diode
6BW11‡	6.3	1CB0-B9A7	13	—	X10	S5	475	Pent. No. 1
6BW11	6.3	1C30-5426	10	—	X10	S5	600	Pent. No. 2
6BY6	6.3	4310-5627	12	—	X2	S5	375	Grid No. 1
6BY6	6.3	4370-5621	16	—	X2	—	150	GRID NO. 3 HOLD DOWN S1 AND PRESS S5
6BY8	6.3	4510-7892	10	—	X4	S5	475	Pent. Sect.
6BY8	6.3	4500-6030	0	78	SH	S1	400	Diode Sect.
6BY11‡	6.3	1C80-BA90	45	—	X4	S5	630	Pent. No. 1
6BY11	6.3	1C30-7625	15	—	X2	S5	350	Pent. No. 2
6BZ3‡	6.3	1C00-A070	0	77	SH	S3	400	
6BZ6	6.3	4310-5627	10	—	X4	S5	700	
6BZ7	6.3	4572-6183	17	—	X10	S5	425	‡Dual Triode
6C4	6.3	4360-1070	25	—	X2	S5	675	
6C9‡	6.3	4570-9B60	16	—	X4	S5	700	Tetrode No. 1
6C9	6.3	4510-32A0	16	—	X4	S5	700	Tetrode No. 2
6C10‡	6.3	1C97-A546	14	—	X4	S5	200	‡Dual Triode
6C10	6.3	1CB0-2030	14	—	X4	S5	200	Triode No. 3
6CA4	6.3	4500-7130	0	42	SH	S3	660	‡Dual Diode
6CA5	6.3	3420-7610	0	—	X10	S5	425	
6CA7	6.3	7250-3481	23	—	X10	S5	375	
6CA11‡	6.3	1C80-BA97	22	—	X4	S5	750	Pent. Sect.
6CA11	6.3	1C60-4050	14	—	X4	S5	750	Triode No. 1
6CA11	6.3	1C30-2070	14	—	X4	S5	700	Triode No. 2
6CB5	7.5	7240-0130	40	—	X10	S5	425	Cap-P
6CB6	6.3	4310-5627	10	—	X4	S5	700	
6CD3‡	6.3	1C00-A070	0	63	SH	S3	650	
6CD6	6.3	7250-0830	29	—	X10	S4	375	Cap-P
6CE3‡	6.3	1C00-4070	0	65	SH	S3	650	
6CE5	6.3	4310-5620	10	—	X4	S5	700	
6CG3‡	6.3	1C00-4070	0	78	SH	S3	400	
6CG7	6.3	4572-6183	23	—	X4	S5	400	‡Dual Triode
6CG8	6.3	4590-6780	10	—	X4	S5	725	Pent. Sect.
6CG8	6.3	4510-2030	15	—	X10	S5	350	Triode Sect.
6CH3‡	6.3	4500-2090	0	66	SH	S3	650	USE ADAPTER SA-4, [illegible]
Model 752A:		No Adapter Required.						
6CJ3‡	6.3	4500-2090	0	78	SH	S3	400	USE ADAPTER SA-4, [illegible]
Model 752A:		No Adapter Required.						
6CK3‡	6.3	4500-2090	0	83	SH	S1	650	USE ADAPTER SA-4, [illegible]
Model 752A:		No Adapter Required.						
6CK4	6.3	7210-5080	46	—	X4	S5	850	
6CL3‡	6.3	4500-2090	0	83	SH	S1	650	USE ADAPTER SA-4, [illegible]
Model 752A:		No Adapter Required.						
6CL5	6.3	7240-0130	46	—	X4	S5	725	Cap-P
6CL6	6.3	4520-6317	12	—	X10	S5	475	
6CL8	6.3	4590-6780	10	—	X4	S5	550	Tetrode Sect.
6CL8	6.3	4510-2030	12	—	X10	S5	425	Triode Sect.
6CM3‡	6.3	4500-2790	0	64	SH	S3	650	SHORT ON 4. USE ADAPTER SA-4, [illegible]
Model 752A:		No Adapter Required.						
6CM6	6.3	4530-9170	18	—	X4	S5	575	
6CM7	6.3	4570-6030	27	—	X4	S5	300	Triode No. 1
6CM7	6.3	4560-1090	23	—	X10	S5	275	Triode No. 2
6CN7	6.3	4570-6060	15	—	X4	S5	175	Triode Sect.
6CN7	6.3	4500-2130	0	78	SH	S1	400	‡Dual Diode
6CQ4	6.3	B700-5030	0	49	SH	S3	650	
6CQ8	6.3	4520-6370	10	—	X4	S5	525	Tetrode Sect.
6CQ8	6.3	4590-1080	11	—	X10	S5	425	Triode Sect.
6CS6	6.3	4310-5627	16	—	X1	S5	300	Grid No. 1
6CS6	6.3	4370-5621	0	—	X1	S5	775	Grid No. 3
6CS7	6.3	4570-6080	22	—	X4	S5	350	Triode No. 1
6CS7	6.3	4530-1090	26	—	X10	S5	275	Triode No. 2
6CT3	6.3	4500-2090	0	45	SH	S3	750	
6CU5	6.3	4320-7610	22	—	X10	—	375	HOLD DOWN S1 AND PRESS S5
6CU8	6.3	4570-2361	10	—	X4	S5	700	Pent. Sect.
6CU8	6.3	4560-9010	24	—	X4	S5	500	Triode Sect.
6CW4‡	6.3	3140-2080	10	—	X10	S4	575	USE ADAPTER SA-3, [illegible]
Model 752A:								
6CW4	6.3	AC40-2080	10	—	X10	S4	575	
6CW5	6.3	4520-7930	18	—	X10	S5	475	
6CX8	6.3	4570-9B60	11	—	X10	S5	400	Pent. Sect.
6CX8	6.3	4520-3010	13	—	X4	S5	675	Triode Sect.
6CY5	6.3	4310-5620	12	—	X4	—	625	HOLD DOWN S1 AND PRESS S5
6CY7	6.3	4570-6060	13	—	X4	S6	200	Triode No.1
6CY7	6.3	4520-1090	60	—	X4	S5	625	Triode No.2
6CZ5	6.3	4530-9170	10	—	X4	S5	700	
6D8	6.3	6100-2354	17	—	X2	S5	500	Cap-G
6D10‡	6.3	1C97-A546	15	—	X4	S5	500	‡Dual Triode
6D10	6.3	1CB0-2030	15	—	X4	S5	500	Triode No. 3
6DA4	6.3	7800-5030	0	40	SH	S3	650	
6DA5	6.3	4510-9020	Vary	100	SH	S6	—	Connect a 1 megohm resistor from Plate jack to octal Test Socket Pin No. 7. Vary Bias to very beam angle.
6DB5	6.3	4530-9120	25	—	X10	—	375	HOLD DOWN S1 AND PRESS S5
6DC6	6.3	4310-5627	10	—	X4	S5	625	
6DE4	6.3	7800-5030	0	49	SH	S3	650	
6DE6	6.3	4310-5627	10	—	X4	S5	700	
6DE7	6.3	4570-6080	30	—	X2	S5	625	Triode No. 1
6DE7	6.3	4520-1090	55	—	X4	S5	775	Triode No. 2
6DG6	6.3	7250-3480	25	—	X10	—	375	HOLD DOWN S1 AND PRESS S5
6DJ8	6.3	4572-6183	20	—	X10	S5	775	‡Dual Triode

TUBE TYPE	FIL	SELECTORS	BIAS	SHUNT	MULT	PRESS	MINIMUM MUT COND	NOTATIONS
6HS8	6.3	4570-8219	10	—	X1	S5	325	Pent. No. 1
6HS8	6.3	4570-3216	10	—	X1	S5	325	Pent. No. 2
6HT6	6.3	4520-7819	10	—	X10	S5	500	
6HV5‡	6.3	1C70-2043	0	78	SH	S1	750	
6HW8	6.3	4560-2379	14	—	X2	S5	700	
	Make external connection from Pin 8 of octal socket to plate jack and connect Pin 1 to Pin 7 on octal socket.							
6HZ5‡	6.3	1C20-7043	0	—	X20	S5	500	
6HZ6	6.3	3410-5627	10	—	X2	S5	450	
6HZ8	6.3	4570-9860	12	—	X10	S5	500	Pent. Sect.
6HZ8	6.3	4520-3010	15	—	X4	S5	550	Triode Sect.
6J4	6.3	4310-7020	15	—	X20	S5	350	
6J6	6.3	4356-2170	17	—	X10	S5	325	‡Dual Triode
6J9‡	6.3	4579-86A0	15	—	X4	S5	750	‡Triodes No. 1&2
6J9	6.3	4520-1030	15	—	X4	S5	750	Triode No. 3
6J10‡	6.3	1C70-4685	0	—	X1	S5	500	Pent. No. 1
6J10	6.3	1CB0-9230	20	—	X10	S5	375	Pent. No. 2
6J11‡	6.3	1CB0-978A	12	—	X4	S5	800	Pent. No. 1
6J11	6.3	1C50-3264	12	—	X4	S5	800	Pent. No. 2
6JA5‡	6.3	1C90-6AB0	35	—	X10	S5	375	
6JB5‡	6.3	1C90-6AB0	47	—	X2	S5	625	
6JB6‡	6.3	4520-0138	31	—	X10	—	450	CAP=P. HOLD DOWN S1 AND PRESS S5 USE ADAPTER 56-4, 1650-144
Model 752A: No Adapter Required.								
6JB8	6.3	4520-6370	25	—	X2	S5	325	Pent. Sect.
6JB8	6.3	4590-1080	23	—	X4	S5	350	Triode Sect.
6JC5‡	6.3	1C90-6AB0	29	—	X4	S5	750	
6JC6	6.3	4520-7819	10	—	X10	S5	625	
6JC8	6.3	4520-6370	10	—	X4	S5	600	Pent. Sect.
6JC8	6.3	4580-9010	10	—	X10	S5	500	Triode Sect.
6JD5‡	6.3	1C20-7043	0	—	X20	S5	500	
6JD6	6.3	4520-7819	11	—	X10	S5	550	
6JE6‡	6.3	4520-0738	42	—	X10	—	575	CAP=P. HOLD DOWN S1 AND PRESS S5 USE ADAPTER 56-4, 1650-144
Model 752A: No Adapter Required.								
6JE8	6.3	4570-9860	15	—	X10	S5	470	Pent. Sect.
6JE8	6.3	4520-3010	14		X4	S5	625	Triode Sect.
6JF6‡	6.3	4520-0738	36	—	X10	—	550	CAP=P. HOLD DOWN S1 AND PRESS S5 USE ADAPTER 56-4, 1650-144
Model 752A: No Adapter Required.								
6JF8	6.3	7150-0460	36	—	X10	—	325	PENT. SECT. CAP=P. HOLD DOWN S1 AND PRESS S5
6JF8	6.3	7100-8020	0	46	SH	S3	625	Diode Sect.
6JG5	6.3	4570-9860	15	—	X10	S5	500	
6JG6‡	6.3	4520-9736	36	—	X10	—	550	HOLD DOWN S1 AND PRESS S5 USE ADAPTER 56-4, 1650-144
Model 752A: No Adapter Required.								
6JH5‡	6.3	1C20-7043	0	—	X20	S5	500	
6JH6	6.3	4310-5627	12	—	X10	S5	375	
6JH8	6.3	4560-9371	16	—	X1	S5	400	PLATE NO. 1. BACKBOARD NEON FLASH ON SHORT TESTING
6JH8	6.3	4560-8371	16	—	X1	S5	400	PLATE NO. 2. BACKBOARD NEON FLASH ON SHORT TESTING
6JK5‡	6.3	1C20-7043	0	—	X20	S5	500	
6JK6	6.3	3410-5627	14	—	X20	S5	625	
6JK8	6.3	4570-6089	18	—	X10	S5	300	Triode No. 1
6JK8	6.3	4520-1039	16	—	X20	S5	350	Triode No. 2
6JL6	6.3	3410-5627	20	—	X10	S5	600	
6JL8	6.3	4570-9860	14	—	X10	S5	500	Pent. Sect.
6JL8	6.3	4520-3010	18	—	X4	S5	700	Triode Sect.
6JM6‡	6.3	1C50-032A	48	—	X10	S5	350	Cap=P
6JN6‡	6.3	1CB0-7324	48	—	X10	S5	350	
6JN8	6.3	4590-6780	12	—	X10	S5	375	Pent. Sect.
6JN8	6.3	4510-2030	20	—	X10	S5	450	Triode Sect.
6JQ6	6.3	4570-1396	55	—	X4	S5	600	Pent. Sect.
6JQ6	6.3	4500-6090	0	70	SH	S1	400	Diode Sect.
6JR6‡	6.3	4520-9136	79	—	X2	S5	575	USE ADAPTER 56-4, 1650-144
Model 752A: No Adapter Required.								
6JS6A‡	6.3	1C50-0324	68	—	X4	S5	600	Cap=P
6JT6‡	6.3	4520-9736	47	—	X10	S5	275	USE ADAPTER 56-4, 1650-144
Model 752A: No Adapter Required.								
6JT8	6.3	4570-9860	15	—	X10	S5	550	Pent. Sect.
6JT8	6.3	4520-3010	21	—	X2	S5	250	Triode Sect.
6JU6‡	6.3	4520-0138	79	—	X2	S5	575	CAP=P. USE ADAPTER 56-4, 1650-144
Model 752A: No Adapter Required.								
6JU8	6.3	4500-2839	0	78	SH	S1	400	‡DIODE NO. 1 & NO. 3
6JU8	6.3	4500-1728	0	78	SH	S1	400	‡DIODE NO. 2 & NO. 4
6JV6‡	6.3	1CB0-732A	60	—	X10	S5	325	
6JV8	6.3	4570-9860	13	—	X10	S5	450	Pent. Sect.
6JV8	6.3	4520-3010	17	—	X4	S5	450	Triode Sect.
6JW8	6.3	4520-6370	14	—	X4	S5	775	Pent. Sect.
6JW8	6.3	4590-1080	13	—	X4	S5	550	Triode Sect.
6JY8	6.3	4570-9860	15	—	X10	S5	500	Pent. Sect.
6JY8	6.3	4520-3010	14	—	X10	S5	625	Triode Sect.
6JZ6‡	6.3	1C50-0324	63	—	X10	S5	300	Cap=P
6JZ8‡	6.3	1C70-4B90	34	—	X10	S5	300	Pent. Sect.
6JZ8	6.3	1CA0-20B0	32	—	X2	S5	450	Triode Sect.
6K6	6.3	7250-34B0	17	—	X4	S5	375	
6K11‡	6.3	1C90-A048	25	—	X2	S5	675	Triode No. 1
6K11	6.3	1C78-5263	14	—	X4	S5	200	‡Dual Triode
6KA8	6.3	4560-9837	14	—	X2	S5	625	Pent. Sect.
6KA8	6.3	4520-1030	19	—	X2	S5	625	Triode Sect.
6KD6‡	6.3	1C50-0324	75	—	X4	S5	900	Cap=P
6KD8	6.3	4520-6370	6	—	X4	S5	700	Pent. Sect.
6KD8	6.3	4590-1080	17	—	X10	S5	500	Triode Sect.
6KE8	6.3	4520-6370	9	—	X10	S5	650	Pent. Sect.
6KE8	6.3	4590-1080	17	—	X10	S5	475	Triode Sect.
6KF8	6.3	4570-8219	10	—	X2	S5	225	Pent. No. 1
6KF8	6.3	4570-3216	10	—	X2	S5	225	Pent. No. 2
6KL8	6.3	4520-7631	5	—	X2	—	600	PENT. SECT. HOLD DOWN S1 AND PRESS S5
6KL8	6.3	4500-8030	0	33	SH	S1	400	Diode Sect.
6KM6‡	6.3	4520-0738	72	—	X4	S5	350	CAP=P USE ADAPTER 56-4, 1650-144
Model 752A: No Adapter Required.								

TUBE TYPE	FIL	SELECTORS	BIAS	SHUNT	MULT	PRESS	MINIMUM MUT COND	NOTATIONS
6KM8	6.3	4570-9860	5	....	X1	....	650	TETRODE PLATE NO. 1 HOLD DOWN S1 AND PRESS S5.
6KM8	6.3	4570-2860	5	....	X1	....	650	TETRODE PLATE NO. 2 HOLD DOWN S1 AND PRESS S5
6KM8	6.3	4570-1860	5	....	X1	....	650	TETRODE PLATE NO. 3 HOLD DOWN S1 AND PRESS S5
6KM8	6.3	4500-3060	0	36	SH	S1	400	Diode Sect.
6KN6‡	6.3	1C50-0324	68	....	X4	S5	500	Cap-P
6KR8	6.3	4570-9860	14	....	X10	S5	475	Pent. Sect.
6KR8	6.3	4520-3010	11	....	X10	S5	500	Triode Sect.
6KS6	6.3	4320-7516	0	....	X1	S5	500	LIMITER GRID
6KS6	6.3	4360-7512	0	....	X1	S5	525	GRID-MATURE GRID
6KT6	6.3	4520-7819	9	....	X10	S5	750	
6KT8	6.3	4570-9860	10	....	X10	S5	450	Pent. Sect.
6KT8	6.3	4520-3010	20	....	X2	S5	475	Triode Sect.
6KU8	6.3	4570-9860	15	....	X10	S5	600	Pent. Sect.
6KU8	6.3	4500-3010	0	30	SH	S1	400	Diode No. 1
6KU8	6.3	4500-2010	0	30	SH	S1	400	Diode No. 2
6KV6‡	6.3	4520-9736	65	....	X4	S5	760	USE ADAPTER SA-4, 1650-144
Model 752A:		No Adapter Required.						
6KV8	6.3	4570-9860	15	....	X20	S5	425	Pent. Sect.
6KV8	6.3	4520-3010	15	....	X4	S5	550	Triode Sect.
6KX8	6.3	4591-7382	14	....	X4	S5	200	‡Dual Triode
6KY6	6.3	4520-7813	13	....	X20	S5	475	
6KY8‡	6.3	4520-6730	42	....	X10	S5	325	PENT. SECT. USE ADAPTER SA-4, 1650-144
6KY8	6.3	4590-8010	18	....	X4	S5	200	Triode Sect.
Model 752A:		No Adapter Required.						
6KZ8	6.3	4520-6730	14	....	X4	S5	625	Pent. Sect.
6KZ8	6.3	4590-1080	18	....	X10	S5	400	Triode Sect.
6L6	6.3	7250-3481	17	....	X10	S5	300	
6LB6‡	6.3	1C50-0324	33	....	X10	S4	750	Cap-P
6LB8	6.3	4570-9860	16	....	X10	S5	550	Pent. Sect.
6LB8	6.3	4520-3010	17	....	X10	S5	350	Triode Sect.
6LC6	6.3	2700-5601	0	50	SH	S1	500	Cap-G
6LC8	6.3	4560-9873	14	....	X2	S5	625	Pent. Sect.
6LC8	6.3	4520-1030	19	....	X2	S5	625	Triode Sect.
6LD6	6.3	4520-7819	13	....	X10	S5	840	
6LE8	6.3	4590-6837	12	....	X2	S5	450	Pent. No. 1
6LE8	6.3	4590-1832	12	....	X2	S5	450	Pent. No. 2
6LF6‡	6.3	1C50-0324	77	....	X4	S5	750	Cap-P
6LF8	6.3	4570-9860	11	....	X10	S5	475	Pent. Sect.
6LF8	6.3	4520-3010	16	....	X4	S5	500	Triode Sect.
6LG6‡	6.3	1C50-0B40	73	....	X10	S5	420	Cap-P
6LH6	6.3	2700-5061	0	50	SH	S1	500	Cap-G
6LJ6	6.3	2700-5063	0	50	SH	S1	500	Cap-G
6LJ8	6.3	4590-6780	10	....	X10	S5	625	Pent. Sect.
6LJ8	6.3	4510-2030	10	....	X10	S5	500	Triode Sect.
6LM8	6.3	4520-6370	15	....	X4	S5	550	Pent. Sect.
6LM8	6.3	4590-1080	17	....	X10	S5	450	Triode Sect.
6LN8	6.3	4520-6371	12	....	X4	S5	625	Pent. Sect.
6LN8	6.3	4590-1086	26	....	X4	S5	675	Triode Sect.
6LQ6‡	6.3	4520-0738	42	....	X10	....	575	CAP-P. HOLD DOWN S1 AND PRESS S5 USE ADAPTER SA-4, 1650-144
Model 752A:		No Adapter Required.						
6LQ8	6.3	4570-9860	15	....	X20	S5	425	Pent. Sect.
6LQ8	6.3	4520-3010	11	....	X10	S5	500	Triode Sect.
6LR6‡	6.3	1C50-0324	80	....	X4	S5	2500	Cap-P
6LR8‡	6.3	4520-6730	40	....	X10	S5	350	PENT. SECT. USE ADAPTER SA-4, 1650-144
6LR8	6.3	4590-8010	21	....	X4	S5	350	Triode Sect.
Model 752A:		No Adapter Required.						
6LT8	6.3	4590-3210	10	....	X10	S5	450	Pent. Sect.
6LT8	6.3	4500-6870	0	80	SH	S1	650	‡Dual Diode
6LU6	6.3	4310-5627	10	....	X10	S5	375	
6LU8‡	6.3	1C60-4890	40	....	X10	S5	350	Pent. Sect.
6LU8	6.3	1CA0-20B0	21	....	X4	S5	350	Triode Sect.
6LW6	6.3	8750-032D	70	....	X10	S5	475	Cap-P
6LX6‡	6.3	1C50-0324	75	....	X4	S5	900	Cap-P
6LY8	6.3	4570-9860	21	....	X10	S5	450	Pent. Sect.
6LY8	6.3	4520-3010	17	....	X2	S5	400	Triode Sect.
6M3	OFF	8200-0000	Use This Setting For Short Check Only.					
6M3	6.3	8200-0030	0	55	SH	....	650	CAP-P. SHORT ON 1-2-3-1 HOLD DOWN S3 AND PRESS S3
Model 752A:								
6M3	6.3	8200-3000	0	55	SH	S3	650	Cap-K
6M11‡	6.3	1C20-B3A0	10	....	X10	S5	550	Pent. Sect.
6M11	6.3	1CB5-7694	16	....	X10	S5	375	‡Dual Triode
6MA6	6.3	3800-6074	0	50	SH	S1	500	Cap-G
6MB6‡	6.3	1C50-0324	75	....	X4	S5	900	Cap-P
6MB8	6.3	4590-6780	8	....	X10	S5	550	Pent. Sect.
6MB8	6.3	4510-2030	12	....	X10	S5	525	Triode Sect.
6MC6‡	6.3	4520-0738	75	....	X4	S5	900	CAP-P. USE ADAPTER SA-4, 1650-144
Model 752A:		No Adapter Required.						
6MD8‡	6.3	4568-3270	27	....	X4	S5	575	S1 RIODES NO. 1 & NO. 2 USE ADAPTER SA-4, 1650-144
6MD8	6.3	4590-1070	27	....	X4	S5	575	Triode No. 3
Model 752A:		No Adapter Required.						
6ME6‡	6.3	4520-0738	42	....	X10	....	575	CAP-P. HOLD DOWN S1 AND PRESS S5. USE ADAPTER SA-4, 1650-144
Model 752A:		No Adapter Required.						
6ME8	6.3	4560-9372	23	....	X2	S5	250	Plate No. 1
6ME8	6.3	4560-8372	23	....	X2	S5	250	Plate No. 2
6MF8‡	6.3	1C70-4890	34	....	X4	S5	750	Pent. Sect.
6MF8	6.3	1CA0-20B0	21	....	X4	S5	750	Triode Sect.
6MG8	6.3	4520-6370	10	....	X10	S5	325	Pent. Sect.
6MG8	6.3	4590-1080	10	....	X10	S5	525	Triode Sect.
6MH6‡	6.3	1C50-0324	75	....	X4	S5	900	Cap-P
6MJ8‡	6.3	1CB0-2030	30	....	X4	S5	600	Triode No. 1
6MJ8	6.3	1CA8-4630	30	....	X4	S5	600	‡Dual Triode
6MK8	6.3	4570-8219	0	....	X2	....	175	PENT. NO. 1. HOLD DOWN S1 AND PRESS S3
6MK8	6.3	4570-3216	0	....	X2	....	175	PENT. NO. 2. HOLD DOWN S1 AND PRESS S3
6ML8	6.3	4568-3270	15	....	X10	S5	470	‡Dual Triode
6ML8	6.3	4590-1070	15	....	X10	S5	470	Triode No. 3
6MN8‡	6.3	1C80-6030	21	....	X4	S5	650	Triode No. 1
6MN8	6.3	1CA8-4230	21	....	X4	S5	650	‡Dual Triode

TUBE TYPE	FIL.	SELECTORS	BIAS	SHUNT	MULT.	PRESS.	MINIMUM MUT COND	NOTATIONS
6MQ8	6.3	4520-6370	10	....	X10	S5	450	Pent. Sect.
6MQ8	6.3	4590-1080	10	....	X10	S5	600	Triode Sect.
6MU8	6.3	4520-6370	15	....	X10	S5	460	Pent. Sect.
6MU8	6.3	4590-1080	15	....	X10	S5	440	Triode Sect.
6MV8	6.3	4570-9860	15	....	X4	S5	700	Pent. Sect.
6MV8	6.3	4520-3010	15	....	X4	S5	440	Triode Sect.
6MY8‡	6.3	1C60-4890	40	....	X10	S5	350	Pent. Sect.
6MY8	6.3	1CA0-20B0	21	....	X4	S5	350	Triode Sect.
6Q11‡	6.3	1C90-A048	25	....	X2	S5	675	Triode No. 1
6Q11	6.3	1C7B-5263	14	....	X4	S5	200	‡Dual Triode
6R4	6.3	4510-8030	28	....	X4	S5	625	
6S4	6.3	4560-9020	21	....	X4	S5	700	
6SN7	6.3	7841-5263	23	....	X4	S5	400	‡Dual Triode
6T4	6.3	4320-1050	16	....	X10	S4	400	
6T8	6.3	4560-9076	15	....	X4	S5	175	Triode Sect.
6T8	6.3	4500-6273	0	78	SH	S1	400	‡Dual Diode
6T8	6.3	4500-1078	0	78	SH	S1	400	Diode No. 3
6T9‡	6.3	1C80-BA90	12	....	X10	S5	450	Pent. Sect.
6T9	6.3	1C40-2050	16	....	X4	S5	200	Triode Sect.
6T10‡	6.3	1C60-BA90	20	....	X10	S5	375	Pent. No. 1
6T10	6.3	1C30-7625	15	....	X2	S5	200	Pent. No. 2
6U8	6.3	4520-6370	12	....	X4	S5	475	Pent. Sect.
6U8	6.3	4590-1080	10	....	X10	S5	525	Triode Sect.
6U9‡	6.3	5630-7824	14	....	X10	S5	375	PENT. SECT. USE ADAPTER SA-11, 1650-177.
6U9	6.3	56A0-9010	30	....	X10	S5	300	Triode Sect.
6U10‡	6.3	1C9B-A243	27	....	X2	S5	625	‡TRIODES NO. 1 AND 2
6U10	6.3	1C70-5060	20	....	X2	S5	175	Triode No. 2
6V3	OFF	4500-0000	Use This Setting For Short Check Only.					
6V3	6.3	4500-0020	0	60	SH	....	650	CAP.-P. SHORT ON 1-2-3-4 HOLD DOWN S3 AND PRESS S2
Model 752A:								
6V3	6.3	4500-2000	0	60	SH	S3	650	Cap.-K
6V5	6.3	7850-3400	46	....	X4	S5	650	
6V6	6.3	7250-3481	18	....	X4	S5	575	
6V8‡	6.3	5630-7412	15	....	X1	....	700	PENT. SECT. HOLD DOWN S1 AND PRESS S2. USE ADAPTER SA-11, 1650-177.
6V9	6.3	5680-A090	23	....	X4	S5	650	Triode Sect.
6W4	6.3	7800-5030	0	60	SH	S3	650	
6W6	6.3	7250-3480	25	....	X10	....	375	HOLD DOWN S1 AND PRESS S2
6X4	6.3	4300-6170	0	18	SH	S3	650	‡Dual Diode
6X5	6.3	7200-5381	0	20	SH	S3	650	‡Dual Diode
6X6	6.3	2753-4086	100	100	SH	S6	.....	Eyes Open
6X6	6.3	2750-4386	100	100	SH	S6	.....	Eyes Closed
6X8	6.3	4570-9861	10	....	X4	S5	725	Pent. Sect.
6X8	6.3	4520-3061	15	....	X10	S5	350	Triode Sect.
6X9‡	6.3	5630-7824	15	....	X10	S5	375	PENT. SECT. USE ADAPTER SA-11, 1650-177.
6X9	6.3	56A0-9010	14	....	X4	S5	750	Triode Sect.
6Y9‡	6.3	5680-A970	16	....	X10	S5	650	PENT. NO. 1. USE ADAPTER SA-11, 1650-177.
6Y9	6.3	5610-4320	12	....	X10	S5	450	Pent. No. 2
6Y10‡	6.3	1C80-BA90	21	....	X4	S5	750	Pent. No. 1
6Y10	6.3	1C30-7625	13	....	X2	S5	575	Pent. No. 2
6Z4	6.3	5100-3240	0	78	SH	S1	400	Diode No. 1
6Z5	6.3	1600-5040	0	30	SH	S3	650	Plate No. 1
6Z5	6.3	2100-3040	0	30	SH	S3	650	Plate No. 2
6Z10‡	6.3	1C70-4685	0	....	X1	S5	500	Pent. No. 1
6Z10	6.3	1CB0-9230	20	....	X10	S5	375	Pent. No. 2
7AU7	6.3	4572-6183	25	....	X2	S5	675	‡Dual Triode
7DJ8	7.5	4572-6183	20	....	X10	S5	775	‡Dual Triode
7EY6	7.5	7250-3480	29	....	X4	S5	675	
7HG8	7.5	4520-B930	11	....	X10	S5	475	Pent. Sect.
7HG8	7.5	4560-7030	33	....	X10	S5	350	Triode Sect.
7KY6	7.5	4520-7813	13	....	X20	S5	475	
7KZ6	7.5	4520-7813	13	....	X10	S5	825	
8AC9‡	7.5	1C90-BA87	11	....	X10	S5	450	Pent. Sect.
8AC9	7.5	1C00-3040	0	87	SH	S1	400	Diode No. 1
8AC9	7.5	1C00-2030	0	87	SH	S1	400	Diode No. 2
8AC10‡	10.0	1C90-A040	11	....	X4	S5	650	Triode No. 1
8AC10	10.0	1C7B-5263	11	....	X4	S5	650	‡DUAL TRIODE SET "LINE ADJUST" TO #1 ON 0-10 SCALE.
8AL9‡	7.5	1C80-2A94	5	....	X10	S5	690	Pent. Sect.
8AL9	7.5	1C50-7060	14	....	X10	S5	395	Triode Sect.
8AR11‡	7.5	1CA0-89B7	5	....	X10	S5	550	Pent. No. 1
8AR11	7.5	1C50-2364	5	....	X10	S5	550	Pent. No. 2
8AU8	7.5	4570-9860	10	....	X10	S5	375	Pent. Sect.
8AU8	7.5	4520-3010	13	....	X10	S5	300	Triode Sect.
8AV11‡	7.5	1C97-A546	23	....	X2	S5	750	‡TRIODE NO. 1 AND NO. 2
8AV11	7.5	1C80-2030	23	....	X2	S5	750	Triode No. 3
8AW8A	7.5	4570-9863	14	....	X10	S5	475	Pent. Sect.
8AW8A	7.5	4520-3019	13	....	X10	S5	250	Triode Sect.
8B10‡	10.0	1C53-6472	24	....	X2	S5	600	‡DUAL TRIODE SET "LINE ADJUST" TO #3
8B10	10.0	1C00-A890	0	70	SH	S1	400	‡Dual Diode
8BA8A	7.5	4570-9860	10	....	X10	S5	375	Pent. Sect.
8BA8A	7.5	4520-3010	29	....	X4	S5	425	Triode Sect.
8BA11‡	7.5	1C40-6387	10	....	X1	S5	325	Pent. No. 1
8BA11	7.5	1C40-2385	10	....	X1	S5	325	Pent. No. 2
8BA11	7.5	1C90-B0A0	30	....	X2	S5	550	Triode Sect.
8BH8	7.5	4570-9860	8	....	X10	S5	375	Pent. Sect.
8BH8	7.5	4520-3010	26	....	X4	S5	500	Triode Sect.
8BM11‡	7.5	1CB0-79A8	10	....	X10	S5	400	Pent. No. 1
8BM11	7.5	1C60-2354	12	....	X10	S5	350	Pent. No. 2
8BN8	7.5	4580-7090	15	....	X4	S5	400	Triode Sect.
8BN8	7.5	4500-6132	0	78	SH	S1	400	‡Dual Diode
8BN11‡	10.0	1C70-B98A	10	....	X10	S5	625	SET "LINE ADJUST" TO 6.5 ON 1-10 SCALE. PENT. NO. 1
8BN11	10.0	1C30-5426	10	....	X10	S5	525	Pent. No. 2
8BQ5	7.5	4520-7930	14	....	X10	S5	475	
8BQ11‡	7.5	1CA0-89B7	8	....	X10	S5	500	Pent. No. 1
8BQ11	7.5	1C50-2364	8	....	X10	S5	625	Pent. No. 2
8BU11‡	7.5	1C80-A9B0	10	....	X4	S5	700	Pent. Sect.
8BU11	7.5	1C64-7352	16	....	X10	S5	450	‡Dual Triode
8CB11‡	7.5	1CA0-89B7	10	....	X10	S5	450	Pent. No. 1
8CB11	7.5	1C50-2364	10	....	X10	S5	450	Pent. No. 2

TUBE TYPE	FIL.	SELECTORS	BIAS	SHUNT	MULT.	PRESS.	MINIMUM MUT COND	NOTATIONS

TUBE TYPE	FIL.	SELECTORS	BIAS	SHUNT	MULT.	PRESS.	MINIMUM MUT. COND.	NOTATIONS
8CM7	7.5	4570–6030	27	—	X4	S5	300	Triode No. 1
8CM7	7.5	4580–1090	23	—	X10	S5	275	Triode No. 2
8CN7	7.5	4570–8060	15	—	X4	S5	325	Triode Sect.
8CN7	7.5	4500–2130	0	78	SH	S1	400	‡Dual Diode
8CS7	7.5	4570–6080	22	—	X4	S5	350	Triode No. 1
8CS7	7.5	4530–1090	26	—	X10	S5	275	Triode No. 2
8CW5	7.5	4520–7930	16	—	X10	S5	475	
8CX8	7.5	4570–9860	11	—	X10	S5	400	Pent. Sect.
8CX8	7.5	4520–3010	13	—	X4	S5	675	Triode Sect.
8EB8	7.5	4570–9860	0	—	X10	S5	625	Pent. Sect.
8EB8	7.5	4520–3010	10	—	X2	S5	625	Triode Sect.
8EM5	7.5	4530–9170	16	—	X10	S5	325	
8ET7	7.5	4570–9860	11	—	X10	S5	500	Pent. Sect.
8ET7	7.5	4500–3210	0	18	SH	S1	400	‡Dual Diode
8FQ7	7.5	4572–6183	23	—	X4	S5	400	‡Dual Triode
8GK6	7.5	4520–7813	10	—	X10	S5	575	
8GN8	7.5	4570–9860	15	—	X10	S5	500	Pent. Sect.
8GN8	7.5	4520–3010	16	—	X2	S5	450	Triode Sect.
8GU7	7.5	4572–6183	33	—	X4	S5	400	‡Dual Triode
8GX7	7.5	4520–6710	11	—	X10	S5	450	Pent. Sect.
8GX7	7.5	4590–8010	15	—	X10	S5	600	Triode Sect.
8JL8	7.5	4570–9860	14	—	X10	S5	500	Pent. Sect.
8JL8	7.5	4520–3010	18	—	X4	S5	700	Triode Sect.
8JU8	7.5	4500–2839	0	78	SH	S1	400	‡Diode 1 and 3
8JU8	7.5	4500–1728	0	78	SH	S1	400	‡Diode 2 and 4
8JV8	7.5	4570–9860	13	—	X10	S5	450	Pent. Sect.
8JV8	7.5	4520–3010	17	—	X4	S5	450	Triode Sect.
8K11‡	7.5	1C90–A048	25	—	X2	S5	675	Triode No. 1
8K11	7.5	1C7B–5263	14	—	X4	S5	200	‡Dual Triode
8KA8	7.5	4560–9837	14	—	X2	S5	625	Pent. Sect.
8KA8	7.5	4520–1030	19	—	X2	S5	625	Triode Sect.
8KR8	7.5	4570–9860	14	—	X10	S5	475	Pent. Sect.
8KR8	7.5	4520–3010	11	—	X10	S5	500	Triode Sect.
8LC8	7.5	4560–9873	14	—	X2	S5	625	Pent. Sect.
8LC8	7.5	4520–1030	19	—	X2	S5	625	Triode Sect.
8LT8	7.5	4590–3216	10	—	X10	S5	450	Pent. Sect.
8LT8	7.5	4500–6870	0	60	SH	S1	650	‡Dual Diode
8MU8	7.5	4520–6370	15	—	X10	S5	460	Pent. Sect.
8MU8	7.5	4590–1080	15	—	X10	S5	440	Triode Sect.
8U9‡	7.5	5630–7824	14	—	X10	S5	375	PENT. SECT. USE ADAPTER 5A-71, 1006-171.
8U9	7.5	56A0–9010	30	—	X10	S5	300	Triode Sect.
8X9‡	7.5	5630–7824	15	—	X10	S5	375	PENT. SECT. USE ADAPTER 5A-71, 1006-171.
8X9	7.5	56A0–9010	14	—	X4	S5	750	Triode Sect.
9AH9‡	10.0	1C50–BB79	16	—	X10	S5	750	Pent. Sect.
9AH9	10.0	1C20–3040	29	—	X4	S5	625	Triode Sect.
9AK10‡	10.0	1C90–A040	17	—	X4	S5	725	Triode No. 1
9AK10	10.0	1C70–5060	17	—	X4	S5	725	Triode No. 2
9AK10	10.0	1C80–2030	17	—	X4	S5	725	Triode No. 3
9AU7	10.0	4572–6183	25	—	X2	S5	675	‡Dual Triode
9BJ11‡	10.0	1C80–79A8	10	—	X2	S5	500	Pent. No. 1
9BJ11	10.0	1C60–2354	11	—	X10	S5	450	Pent. No. 2
9EA8	10.0	4520–6370	9	—	X4	S5	550	Pent. Sect.
9EA8	10.0	4590–1080	10	—	X10	S5	525	Triode Sect.
9GH8	10.0	4520–6370	11	—	X4	S5	625	Pent. Sect.
9GH8	10.0	4590–1080	13	—	X10	S5	525	Triode Sect.
9JW8	10.0	4520–6370	14	—	X4	S5	775	Pent. Sect.
9JW8	10.0	4590–1080	13	—	X4	S5	550	Triode Sect.
9KC6	7.5	4520–7916	10	—	X10	S5	550	
9KX6	7.5	4520–7813	11	—	X20	S5	475	
9KZ8	10.0	4520–6730	14	—	X4	S5	625	Pent. Sect.
9KZ8	10.0	4590–1080	18	—	X10	S5	400	Triode Sect.
9LA6	7.5	4520–7813	14	—	X10	S5	575	
9ML8	10.0	4568–3270	15	—	X10	S5	470	‡Dual Triode
9ML8	10.0	4590–1070	15	—	X10	S5	470	Triode No. 3
9MN8‡	10.0	1C80–6030	21	—	X4	S5	650	Triode No. 1
9MN8	10.0	1CAB–4230	21	—	X4	S5	650	‡Dual Triode
9R-AL1	10.0	4570–6080	33	—	X2	S5	670	Triode No. 1
9R-AL1	10.0	4530–1090	36	—	X4	S5	670	Triode No. 2
9V9‡	10.0	5630–7412	15	—	X1	—	700	INCPT. SECT. HOLD BOWN S1 AND PRESS 3S. USE ADAPTER 5A-71, 1006-171.
9V9	10.0	5680–A090	23	—	X4	S5	650	Triode Sect.
10AL11‡	10.0	1C80–BA90	19	—	X10	S5	400	Pent. No. 1
10AL11	10.0	1C30–6724	22	—	X2	S5	300	Pent. No. 2
10BQ5	10.0	4520–7930	14	—	X10	S5	475	
10CW5	10.0	4520–7930	16	—	X10	S5	475	
10DE7	10.0	4570–6080	30	—	X2	S5	625	Triode No. 1
10DE7	10.0	4520–1090	55	—	X4	S5	775	Triode No. 2
10DR7	10.0	4570–6080	13	—	X2	S5	375	Triode No. 1
10DR7	10.0	4520–1090	55	—	X4	S5	850	Triode No. 2
10EG7	10.0	7840–5060	29	—	X2	S5	625	Triode No. 1
10EG7	10.0	7810–2030	55	—	X10	S5	475	Triode No. 2
10EM7	10.0	7840–5060	13	—	X2	S5	500	Triode No. 1
10EM7	10.0	7810–2030	60	—	X10	S5	425	Triode No. 2
10GF7‡	10.0	4590–8010	20	—	X2	S5	250	TRIODE NO. 1 USE ADAPTER 5A-4, 1006-170
10GF7	10.0	4520–6030	64	—	X10	S5	450	Triode No. 2
Model 752A: No Adapter Required.								
10GK6	10.0	4520–7813	10	—	X10	S5	575	
10GN8	10.0	4570–9860	15	—	X10	S5	500	Pent. Sect.
10GN8	10.0	4520–3010	16	—	X2	S5	450	Triode Sect.
10GV8	10.0	4590–6780	36	—	X10	S5	375	Pent. Sect.
10GV8	10.0	4520–1030	23	—	X2	S5	950	Triode Sect.
10HF8	10.0	4570–9860	11	—	X10	S5	475	Pent. Sect.
10HF8	10.0	4520–3010	15	—	X4	S5	500	Triode Sect.
10J10‡	10.0	1C70–4685	0	—	X1	S5	500	Pent. No. 1
10J10	10.0	1CB0–9230	20	—	X10	S5	375	Pent. No. 2
10JA5‡	10.0	1C90–6AB0	35	—	X10	S5	375	
10JA8	10.0	4570–9860	12	—	X10	S5	525	Tetrode Sect.
10JA8	10.0	4520–3010	23	—	X2	S5	475	Triode Sect.
10JT8	10.0	4570–9860	15	—	X10	S5	550	Pent. Sect.
10JT8	10.0	4520–3010	21	—	X2	S5	250	Triode Sect.
10JY8	10.0	4570–9860	15	—	X10	S5	500	Pent. Sect.
10JY8	10.0	4520–3010	14	—	X10	S5	625	Triode Sect.

TUBE TYPE	FIL	SELECTORS	BIAS	SHUNT	MULT	PRESS	MINIMUM OUT CURR	NOTATIONS
10KR8	10.0	4570-9860	14	----	X10	S5	475	Pent. Sect.
10KR8	10.0	4520-3010	11	----	X10	S5	500	Triode Sect.
10KU8	10.0	4570-9860	15	----	X10	S5	600	Pent. Sect.
10KU8	10.0	4500-3010	0	30	SH	S1	400	Diode No. 1
10KU8	10.0	4500-2010	0	30	SH	S1	400	Diode No. 2
10LB8	10.0	4570-9860	18	----	X10	S5	550	Pent. Sect.
10LB8	10.0	4520-3010	17	----	X10	S5	350	Triode Sect.
10LD6	10.0	4520-7819	13	----	X10	S5	840	
10LE8	10.0	4590-6837	12	----	X2	S5	450	Pent. No. 1
10LE8	10.0	4590-1832	12	----	X2	S5	450	Pent. No. 2
10LW8	10.0	4570-9860	15	----	X10	S5	600	Pent. Sect.
10LW8	10.0	4520-3010	18	----	X4	S5	350	Triode Sect.
10LY8	10.0	4570-9860	21	----	X10	S5	450	Pent. Sect.
10LY8	10.0	4520-3010	17	----	X2	S5	400	Triode Sect.
10LZ8	10.0	4570-9860	11	----	X10	S5	375	Pent. Sect.
10LZ8	10.0	4520-3010	17	----	X4	S5	150	Triode Sect.
10T10‡	10.0	1C80-BA90	20	----	X10	S5	375	Pent. No. 1
10T10	10.0	1C30-7625	15	----	X2	S5	200	Pent. No. 2
10Z10‡	10.0	1C70-4686	0	----	X1	S5	600	Pent. No. 1
10Z10	10.0	1C80-9230	20	----	X10	S5	375	Pent. No. 2
10WP7	6.3	7230-5084	0	78	SH	S1	650	EMISSION TEST
10WP7	6.3	7250-3084	#	0	SH	S6	----	USE CONTROL & GAS TEST

Hold down S6 and rotate bias dial. Meter pointer should move up and down scale if grid is operating.
Gas Test: Adjust bias until meter reads one small division. Hold down S6 and press S7. If meter pointer moves up scale more than one division, tube is gassy. Use Hickok Adapter Code No. 1050-28

TUBE TYPE	FIL	SELECTORS	BIAS	SHUNT	MULT	PRESS	MINIMUM OUT CURR	NOTATIONS
11AF9‡	12.6	5680-A970	16	----	X10	S5	650	PENT. NO. 1. USE ADAPTER SA-11, 1050-177
11AF9	12.6	5610-4320	12	----	X10	S5	450	Pent. No. 2
11AR11‡	12.6	1CA0-89B7	5	----	X10	S5	525	PENT. NO. 1 SET "LINE ADJUST" TO [illegible]
11AR11	12.6	1C50-2364	5	----	X10	S5	525	Pent. No. 2
11BQ11‡	12.6	1CA0-89B7	10	----	X10	S6	350	PENT. NO. 1. SET "LINE ADJUST" TO 90 ON 200 SCALE
11BQ11	12.6	1C50-2364	10	----	X10	S5	375	Pent. No. 2
11BT11‡	10.0	1C80-2A86	10	----	X20	S5	475	Pent. Sect.
11BT11	10.0	1C50-7060	12	----	X4	S6	850	Triode No. 1
11BT11	10.0	1C30-9040	20	----	X4	S5	750	Triode No. 2
11CA11‡	10.0	1C80-BA97	22	----	X4	S5	750	Pent. Sect.
11CA11	10.0	1C60-4050	14	----	X4	S5	750	Triode No. 1
11CA11	10.0	1C30-2070	14	----	X4	S6	700	Triode No. 2
11CF11‡	10.0	1C50-3460	10	----	X10	S5	825	Pent. Sect.
11CF11	10.0	1C90-A080	12	----	X10	S5	350	Triode No. 1
11CF11	10.0	1CB0-2070	13	----	X10	S5	400	Triode No. 2
11CY7	10.0	4570-6080	13	----	X4	S5	200	Triode No. 1
11CY7	10.0	4520-1090	60	----	X4	S5	625	Triode No. 2
11DS5	12.6	4310-5620	14	----	X10	S6	600	SET "LINE ADJUST" TO 86 ON 200 SCALE
11FY7‡	10.0	1CA0-B090	21	----	X2	S5	225	Triode No. 1
11FY7	10.0	1C30-5070	59	----	X4	S5	475	Triode No. 2
11HM7	10.0	4520-7819	10	----	X20	S5	500	

TUBE TYPE	FIL	SELECTORS	BIAS	SHUNT	MULT	PRESS	MINIMUM OUT CURR	NOTATIONS
11JE8	10.0	4570-9860	15	----	X10	S5	475	Pent. Sect.
11JE8	10.0	4520-3010	14	----	X4	S5	625	Triode Sect.
11KV8	10.0	4570-9860	15	----	X20	S6	425	Pent. Sect.
11KV8	10.0	4520-3010	15	----	X4	S6	550	Triode Sect.
11LQ8	10.0	4570-9860	15	----	X20	S5	425	Pent. Sect.
11LQ8	10.0	4520-3010	11	----	X10	S5	500	Triode Sect.
11LT8	12.6	4590-3216	13	----	X10	S5	375	PENT. SECT. SET "LINE ADJUST" TO 90 ON 200 SCALE
11LT8	12.6	4500-6870	0	77	SH	S1	750	IDual Diode
11LY6	12.6	4520-7813	0	----	X10	S5	500	
11MS8	12.6	4590-6780	52	----	X4	S5	825	Pent. Sect.
11MS8	12.6	4520-1030	24	----	X4	S5	650	Triode Sect.
11Y9‡	10.0	5680-A970	16	----	X10	S5	650	PENT. NO. 1. USE ADAPTER SA-11, 1050-171.
11Y9	10.0	5610-4320	12	----	X10	S5	450	Pent. No. 2
12AC10‡	12.6	1C90-A040	11	----	X10	S5	450	Triode No. 1
12AC10	12.6	1C78-5263	11	----	X10	S5	450	IDual Triode
12AE10‡	12.6	1C80-BA90	25	----	X4	S6	425	Pent. No. 1
12AE10	12.6	1C30-7625	23	----	X2	S5	250	Pent. No. 2
12AF3	12.6	4500-2000	0	44	SH	S3	650	CONNECT CAP TO EXT. HELP BIAS [illegible] MODEL [illegible]
Model 752A:								
12AL5	12.6	4300-7215	0	78	SH	S1	400	IDual Diode
12AL11‡	12.6	1C80-BA90	19	----	X10	S5	400	Pent. No. 1
12AL11	12.6	1C30-6724	22	----	X2	S5	300	Pent. No. 2
12AQ5	12.6	4310-5620	18	----	X4	S5	575	
12AT6	12.6	4310-7020	15	----	X4	S5	175	Triode Sect.
12AT6	12.6	4300-6527	0	30	SH	S1	400	IDual Diode
12AT7	12.6	4572-6183	14	----	X4	S5	625	IDual Triode
12AU6	12.6	4310-5672	10	----	X4	S6	475	
12AU7	12.6	4572-6183	25	----	X2	S5	675	IDual Triode
12AV5	12.6	7210-5830	28	----	X10	S4	350	
12AV6	12.6	4310-7025	14	----	X4	S5	200	Triode Sect.
12AV6	12.6	4300-6527	0	30	SH	S1	400	IDual Diode
12AV7	12.6	4572-6183	10	----	X10	S5	525	IDual Triode
12AX3‡	12.6	1C00-4070	0	40	SH	S3	650	
12AX7	12.6	4572-6183	14	----	X4	S5	200	IDual Triode
12AY3‡	12.6	4500-2090	0	52	SH	S3	650	USE ADAPTER SA-4, 1050-14
Model 752A: No Adapter Required.								
12AY7	12.6	4572-6183	15	----	X4	S5	275	IDual Triode
12AZ7	12.6	4572-6183	14	----	X4	S5	625	IDual Triode
12B4	12.6	4520-9010	50	----	X10	S6	400	
12BA6	12.6	4310-5672	0	----	X4	S5	500	
12BA7	12.6	4570-9132	0	----	X2	----	225	AMPL. SECT. HOLD DOWN S1 AND PRESS S6.
12BA7	12.6	4520-1037	16	----	X10	S5	500	Osc. Sect.
12BD6	12.6	4310-5672	10	----	X4	S5	300	
12BE3‡	12.6	1C00-A070	0	58	SH	S3	650	
12BE6	12.6	4370-5621	0	----	X2	----	250	AMPL. SECT. HOLD DOWN S1 AND PRESS S6.
12BE6	12.6	4310-6027	20	----	X10	S5	400	Osc. Sect.
12BF6	12.6	4310-7020	21	----	X2	S5	600	Triode Sect.
12BF6	12.6	4300-6527	0	30	SH	S1	400	IDual Diode

TUBE TYPE	FIL	SELECTORS	BIAS	SHUNT	MULT	PRESS	MINIMUM MUT COND	NOTATIONS
12BF11‡	12.6	1C80-BA90	30	—	X10	S5	375	Pent. No. 1
12BF11	12.6	1C30-7625	17	—	X2	S5	200	Pent. No. 2
12BH7	12.6	4572-6183	28	—	X4	S5	475	‡Dual Triode
12BN6	12.6	4320-7516	0	—	X1	S5	500	Limiter Grid
12BN6	12.6	4360-7512	0	—	X1	S5	525	GRADATIVE AGC
12BQ6	12.6	7250-0480	28	—	X10	S4	350	Cap—P
12BS3‡	12.6	4500-2090	0	60	SH	S3	400	USE ADAPTER 5A-4, 1608-14A
Model 752A:		No Adapter Required.						
12BT3‡	12.6	1C00-4070	0	60	SH	S3	650	
12BV11‡	12.6	1C70-A988	13	—	X4	S5	400	Pent. No. 1
12BV11	12.6	1C60-3452	13	—	X4	S5	400	Pent. No. 2
12BY3	12.6	4500-2000	0	60	SH	S3	650	CONNECT CAP TO EXT. SELF BIAS RES. SELECT MODEL 752A-CAP-K
Model 752A:								
12BY7	12.6	4520-7813	0	—	X10	S5	500	
12BZ6	12.6	4310-5627	10	—	X4	S5	700	
12C5	12.6	4320-7610	13	—	X10	—	475	HOLD DOWN S1 AND PRESS S5
12CA5	12.6	3420-7610	0	—	X10	S5	425	
12CK3‡	12.6	4500-2090	0	83	SH	S1	650	USE ADAPTER 5A-4, 1608-14A
Model 752A:		No Adapter Required.						
12CL3‡	12.6	4500-2090	0	83	SH	S1	650	USE ADAPTER 5A-4, 1608-14A
Model 752A:		No Adapter Required.						
12CR6	12.6	4370-5612	11	—	X4	S5	350	Pent. Sect.
12CR6	12.6	4300-2010	0	30	SH	S1	400	Diode Sect.
12CS6	12.6	4310-5627	16	—	X1	S5	300	Grid No. 1
12CS6	12.6	4370-5621	0	—	X1	S5	775	Grid No. 3
12CT3	12.6	4500-2090	0	45	SH	S3	750	
12CU5	12.6	4320-7610	22	—	X10	—	375	HOLD DOWN S1 AND PRESS S5
12CU6	12.6	7250-0480	28	—	X10	S4	350	Cap—P
12D4	12.6	7800-5030	0	40	SH	S3	650	
12DB5	12.6	4530-9120	25	—	X10	—	375	HOLD DOWN S1 AND PRESS S5
12DJ8	12.6	4572-6183	20	—	X10	S5	775	‡Dual Triode
12DM4	12.6	7800-5030	0	49	SH	S3	650	
12DM5	12.6	4320-7610	13	—	X10	—	475	HOLD DOWN S1 AND PRESS S5
12DQ6	12.6	7250-0480	36	—	X10	—	300	CAP—P. HOLD DOWN S1 AND PRESS S5
12DT5	12.6	4530-9170	22	—	X10	S5	300	
12DT8	12.6	4310-5627	12	—	X1	S5	375	Grid No. 1
12DT8	12.6	4370-5621	8	—	X1	S5	300	Grid No. 3
12DT7	12.6	4572-6183	14	—	X4	S5	200	‡Dual Triode
12DT8	12.6	4572-6183	14	—	X4	S5	625	‡Dual Triode
12DW4‡	12.6	4500-2090	0	55	SH	S3	650	USE 5A-4, 1608-14A
Model 752A:		No Adapter Required.						
12DW7	12.6	4570-6080	14	—	X4	S5	200	Triode No. 1
12DW7	12.6	4520-1030	25	—	X2	S5	675	Triode No. 2
12FK6	12.6	4310-7020	20	0	SH	S1	400	TRIODE SECT. MAKE NO GAS TEST
12FK6	12.6	4300-6520	0	30	SH	S1	400	‡Dual Diode
12FM6	12.6	4300-7021	0	25	SH	S1	650	TRIODE SECT. MAKE NO GAS TEST.
12FM6	12.6	4300-6520	0	36	SH	S1	400	‡Dual Diode
12FQ8	12.6	4572-6390	10	—	X2	S5	250	X TRIODE TEST TRIODE No. 1, PLATE No. TRIODE No. 2, PLATE No.
12FQ8	12.6	4572-6190	10	—	X2	S5	250	X TRIODE TEST TRIODE No. 1, PLATE No. 1 TRIODE No. 2, PLATE No. 2
12FX5	12.6	4320-7610	15	—	X10	S5	475	
12G11‡	12.6	1C80-BA90	39	—	X4	S5	650	Pent. No. 1
12G11	12.6	1C30-6724	20	—	X2	S5	150	Pent. No. 2
12GC6	12.6	2750-0630	50	—	X10	S5	300	Cap—P
12GE5‡	12.6	1CB0-72A0	50	—	X10	S5	300	
12GJ5‡	12.6	4560-0730	31	—	X10	—	450	CAP—P. HOLD DOWN S1 AND PRESS S5 USE ADAPTER 5A-4, 1608-
Model 752A:		No Adapter Required.						
12GN7	12.6	4520-7819	10	—	X20	S5	600	
12GT5	12.6	4560-0730	31	—	X10	—	450	USE SHORTEST LEAD POSSIBLE USE ADAPTER 5A-4, 1608-14A
Model 752A:		No Adapter Required.						
12GV5‡	12.6	1C90-0BA0	48	—	X10	S5	350	Cap—P
12GW6	12.6	2750-0480	31	—	X10	—	450	CAP—P. HOLD DOWN S1 AND PRESS S5
12H-B25	12.6	4520-0798	45	—	X10	S5	350	CAP—P USE ADAPTER 5A-4, 1608-
12HE7‡	12.6	1C90-5880	58	—	X10	S5	200	Pent. Sect.
12HE7	12.6	1C00-2040	0	85	SH	S1	600	Diode Sect.
12HG7	12.6	4520-7813	11	—	X20	S5	550	
12HL5	12.6	4520-7930	21	—	X10	S5	625	
12HL7	12.6	4520-7813	18	—	X10	S5	450	
12JB6‡	12.6	4520-0138	31	—	X10	—	450	CAP—P. HOLD DOWN S1 AND PRESS S5 USE ADAPTER 5A-4, 1608-14
Model 752A:		No Adapter Required.						CAP—P. HOLD DOWN S1 AND PRESS S5
12JF5‡	12.6	1C30-0240	36	—	X10	—	300	
12JN6‡	12.6	1CB0-7324	48	—	X10	S5	350	
12JN8	12.6	4590-6780	12	—	X10	S5	375	Pent. Sect.
12JN8	12.6	4610-2030	20	—	X10	S5	450	Triode Sect.
12JQ6	12.6	4570-1396	55	—	X4	S5	600	Pent. Sect.
12JQ6	12.6	4600-6090	0	70	SH	S1	400	Diode Sect.
12JS6‡	12.6	1C50-0324	68	—	X4	S5	600	Cap—P
12JT6‡	12.6	4520-9735	47	—	X10	S5	275	USE ADAPTER 5A-4, 1608-14A
Model 752A:		No Adapter Required.						
12K5	12.6	4320-7510	10	—	X4	S4	625	MAKE NO GAS TEST
12MD8‡	12.6	4568-3270	27	—	X4	S5	575	X TRIODE NO. 1 & NO. 2 USE ADAPTER 5A-4, 1608-14A
12MD8	12.6	4690-1070	27	—	X4	S5	575	Triode No. 3
Model 752A:		No Adapter Required.						
12MN8‡	12.6	1C80-6030	21	—	X4	S5	650	Triode No. 1
12MN8	12.6	1CA8-4230	21	—	X4	S5	650	‡Dual Triode
12R-LL5	12.6	4572-6138	23	—	X4	S5	400	‡Dual Triode
12SN7	12.6	7841-6263	23	—	X4	S5	400	‡Dual Triode
12T10‡	12.6	1C80-BA90	20	—	X10	S5	375	Pent. No. 1
12T10	12.6	1C30-7625	15	—	X2	S5	200	Pent. No. 2
12V6	12.6	7250-3480	18	—	X4	S5	575	
12W6	12.6	7250-3480	25	—	X10	—	375	HOLD DOWN S1 AND PRESS S5
12X4	12.6	4300-6170	0	18	SH	S3	650	‡Dual Diode
13CW4‡	12.6	3140-2080	10	—	X10	S4	575	USE ADAPTER 5A-4, 1608-14A
Model 752A:								
13CW4	12.6	AC40-2080	10	—	X10	S4	575	
13DE7	12.6	4570-6080	30	—	X2	S5	625	Triode No. 1
13DE7	12.6	4520-1090	55	—	X4	S5	775	Triode No. 2

TUBE TYPE	FIL.	SELECTORS	BIAS	SHUNT	MULT.	PRESS.	MINIMUM MUT. COND.	NOTATIONS
21LR8‡	20.0	4520-6730	40	—	X10	S5	350	PENT. SECT. SEE ADAPTER SA-4, [illegible]
21LR8	20.0	4590-8010	21	—	X4	S6	350	Triode Sect.
Model 752A: No Adapter Required.								
21LU8‡	20.0	1C60-4890	40	—	X10	S5	350	Pent. Sect.
21LU8	20.0	1CA0-20B0	21	—	X4	S5	350	Triode Sect.
21MY8‡	20.0	1C60-4890	40	—	X10	S5	350	Pent. Sect.
21MY8	20.0	1CA0-20B0	21	—	X4	S6	350	Triode Sect.
22BH3‡	20.0	4500-2090	0	52	SH	S3	650	SET "LINE ADJUST" TO 100 ON 100 SCALE USE ADAPTER SA-6, [illegible]
Model 752A: No Adapter Required.								
22BW3‡	25.0	1C00-A070	0	49	SH	S3	650	
22DE4	25.0	7800-5030	0	49	SH	S3	650	
22JF6‡	20.0	4520-0738	36	—	X10	—	350	CAP.-P. HOLD DOWN S1 AND PRESS S5 USE ADAPTER SA-4, [illegible]
Model 752A: No Adapter Required.								
22JG6‡	20.0	4520-9736	36	—	X10	—	550	HOLD DOWN S1 AND PRESS S5 USE ADAPTER SA-4, [illegible]
Model 752A: No Adapter Required.								
22JR6‡	20.0	4520-9136	79	—	X2	S5	575	USE ADAPTER SA-4, [illegible]
Model 752A: No Adapter Required.								
22JU6‡	20.0	4520-0736	79	—	X2	S5	575	CAP.-P. USE ADAPTER SA-4, [illegible]
Model 752A: No Adapter Required.								
22KM6‡	20.0	4520-0738	72	—	X4	S5	350	CAP.-P. USE ADAPTER SA-4, [illegible]
Model 752A: No Adapter Required.								
22KV6‡	20.0	4520-9736	65	—	X4	S5	760	USE ADAPTER SA-4, [illegible]
Model 752A: No Adapter Required.								
23JS6‡	25.0	1C50-0324	68	—	X4	S5	600	Cap.-P
23Z9‡	25.0	1C80-5970	40	—	X10	S5	300	Pent. Sect.
23Z9	25.0	1CA0-B070	20	—	X4	S5	550	Triode No. 1
23Z9	25.0	1C30-2070	30	—	X4	S5	350	Triode No. 2
24BF11‡	25.0	1C90-BA90	30	—	X10	S5	450	Pent. No. 1
24BF11	25.0	1C30-7625	19	—	X2	S5	275	Pent. No. 2
24GA7‡	25.0	1C40-7350	49	—	X4	S5	700	Pent. Sect.
24GA7	25.0	1C00-B0B0	0	43	SH	S3	400	Diode Sect.
24JE6A‡	25.0	4520-0738	42	—	X10	—	575	CAP.-P. HOLD DOWN S1 AND PRESS S5 USE ADAPTER SA-4, [illegible]
Model 752A: No Adapter Required.								
24JZ8‡	25.0	1C70-4890	40	—	X10	S5	425	Pent. Sect.
24JZ8	25.0	1CA0-20B0	34	—	X2	S5	500	Triode Sect.
24LQ6‡	25.0	4520-0738	42	—	X10	—	575	CAP.-P. HOLD DOWN S1 AND PRESS S5 USE ADAPTER SA-4, [illegible]
Model 752A: No Adapter Required.								
25AV5	25.0	7210-5830	28	—	X10	S4	350	
25AX4	25.0	7800-5030	0	40	SH	S3	650	
25BK5	25.0	4530-1860	0	—	X10	S5	475	
25BQ6	25.0	7250-0480	28	—	X10	S4	350	Cap.-P HOLD DOWN S1 AND PRESS S5
25C5	25.0	4320-7610	13	—	X10	—	475	
25CA5	25.0	3420-7610	0	—	X10	S5	425	
25CD6	25.0	7250-0830	29	—	X10	S4	375	Cap.-P
25CG3‡	25.0	1C00-4070	0	78	SH	S3	400	
25CK3‡	25.0	4500-2090	0	83	SH	S1	650	USE ADAPTER SA-4, [illegible]
Model 752A: No Adapter Required.								
25CM3‡	25.0	4500-2790	0	64	SH	S3	650	SHUNT OR 4, USE ADAPTER SA-4, [illegible]
Model 752A: No Adapter Required.								

TUBE TYPE	FIL.	SELECTORS	BIAS	SHUNT	MULT.	PRESS.	MINIMUM MUT. COND.	NOTATIONS
25CT3	25.0	4500-2090	0	45	SH	S3	750	
25DN6	25.0	7250-0830	28	—	X10	—	550	CAP.-P. HOLD DOWN S1 AND PRESS S5
25EC6	25.0	7250-0830	69	—	X4	S5	625	Cap.-P
25EH5	25.0	4320-7610	13	—	X10	S5	450	
25F5	25.0	4320-7610	30	—	X4	S5	625	
25F5A	25.0	4320-7610	30	—	X4	S5	700	
25H-B25	25.0	4520-0798	45	—	X10	S5	360	CAP.-P USE ADAPTER SA-4, [illegible]
25HX5	25.0	4570-9630	55	—	X10	S5	350	USE ADAPTER SA-4, [illegible]
25JQ6‡	25.0	4570-1396	55	—	X4	S5	600	Pent. Sect.
25JQ6	25.0	4500-6090	0	70	SH	S1	400	Diode Sect.
25JZ8‡	25.0	1C70-4890	40	—	X10	S5	425	Pent. Sect.
25JZ8	25.0	1CA0-20B0	34	—	X2	S5	500	Triode Sect.
25L6	25.0	7250-3481	25	—	X10	—	375	HOLD DOWN S1 AND PRESS S5
25W4	25.0	7800-5030	0	60	SH	S3	650	
26DQ6	25.0	7210-0430	65	—	X4	S5	450	Cap.-P
26HU5	25.0	8710-0320	75	—	X4	S5	900	Cap.-P
26LW6	25.0	8750-0320	70	—	X10	S5	475	Cap.-P
26LX6‡	25.0	1C50-0324	75	—	X4	S5	900	Cap.-P
27LF6‡	25.0	1C50-0324	77	—	X4	S5	750	Cap.-P
28D7‡	25.0	8170-5362	9	—	X4	S4	525	Pent. No. 1
28D7	25.0	8120-4367	9	—	X4	S4	525	Pent. No. 2
28HA6	25.0	4520-7613	11	—	X20	S5	400	
28HD8‡	25.0	1CB0-79A0	52	—	X10	S6	400	
29GK6	25.0	4520-7813	10	—	X10	S5	575	
29LE6	25.0	4580-0392	30	—	X10	S4	750	CAP.-P. USE ADAPTER SA-6, [illegible]
30AG11‡	35.0	1C85-7694	11	—	X10	S5	525	‡DUAL TRIODE. SET "LINE ADJUST" TO 100 ON 100 SCALE
30AG11	35.0	1C00-A3B2	0	78	SH	S1	400	‡Dual Diode
30HJ5‡	25.0	1CB0-792A	63	—	X10	S6	350	
30JZ6‡	35.0	1C50-0324	63	—	X10	—	300	Cap.-P
30KD6‡	35.0	1C50-0324	75	—	X4	S5	750	CAP.-P. SET "LINE ADJUST" TO 41 ON 0-100 SCALE
30MB6‡	35.0	1C50-0324	75	—	X4	S5	750	CAP.-P. SET "LINE ADJUST" AT 41 ON 0 TO 100 SCALE
30M-P27	25.0	4320-7610	52	—	X4	S5	825	
30R-K47	25.0	4500-9020	0	56	SH	S3	800	CONNECT CAP TO PIN 1 OF OCTAL SOCKET
31AL10‡	35.0	1C80-4570	37	—	X4	S5	790	Pent. Sect.
31AL10	35.0	1CB0-90A0	15	—	X4	S5	750	Triode No. 1
31AL10	35.0	1C30-2070	28	—	X4	S5	472	Triode No. 2
31JS6A‡	35.0	1C50-0324	68	—	X4	S5	600	Cap.-P
31LQ6‡	35.0	4520-0738	42	—	X10	—	575	CAP.-P. HOLD DOWN S1 AND PRESS S5 USE ADAPTER SA-4, [illegible]
Model 752A: No Adapter Required.								SET LINE ADJUST TO 100 ON 100 SCALE
32ET5	35.0	4320-7610	38	—	X4	S5	650	Pent. Sect.
32GA7‡	35.0	1C40-7350	49	—	X4	S5	700	Diode Sect.
32GA7	35.0	1C00-B0B0	0	43	SH	S3	400	Pent. Sect.
32HQ7‡	35.0	1C90-5B80	73	—	X10	S5	275	Diode Sect.
32HQ7	35.0	1C00-2040	0	78	SH	S1	750	PENT. SECT. HOLD DOWN S1 AND PRESS S3
33GT7‡	35.0	1CB0-5A80	34	—	X10	—	450	Diode Sect.
33GT7	35.0	1C00-2040	0	76	SH	S3	400	PENT. SECT. HOLD DOWN
33GY7‡	35.0	1CA0-5B80	34	—	X10	—	450	

TUBE TYPE | FIL. | SELECTORS | BIAS | SHUNT | MULT. | PRESS. | MINIMUM MUT. COND. | NOTATIONS

TUBE TYPE	FIL.	SELECTORS	BIAS	SHUNT	MULT	PRESS	MINIMUM MUT COND	NOTATIONS
33HE7‡	35.0	1C90-5880	58	....	X10	S5	200	Pent. Sect.
33HE7	35.0	1C00-2040	0	65	SH	S3	500	Diode Sect.
33JR6‡	35.0	4520-9136	79	....	X2	S5	575	USE ADAPTER SA-4, [illegible]
Model 752A: No Adapter Required.								
33JV6‡	35.0	1CB0-732A	60	—	X10	S5	325	
34CD3‡	35.0	1C00-A070	0	63	SH	S3	650	
34CE3‡	35.0	1C00-4070	0	65	SH	S3	650	
34GD5	35.0	3420-7610	39	—	X4	S5	700	
34CM3‡	35.0	4500-2790	0	64	SH	S3	650	SHORT ON L USE ADAPTER SA-4, [illegible]
Model 752A: No Adapter Required.								
35B5	35.0	4310-5620	0	....	X10	S4	300	
35C5	35.0	4320-7610	0	....	X10	S4	300	
35EH5	35.0	4320-7610	15	....	X10	S5	450	
35GL6	35.0	4320-7510	35	—	X10	S5	325	
35HB8	35.0	4590-7680	24	....	X4	S5	475	Pent. Sect.
35HB8	35.0	4510-3020	15	—	X4	S5	475	Triode Sect.
35L6	35.0	7250-3480	0	....	X10	S4	300	
35LR6‡	35.0	1C50-0324	80	....	X4	S5	2500	Cap.-P
35W4	35.0	4300-5070	0	50	SH	S3	650	
35Z5	35.0	7200-5080	0	50	SH	S3	650	
36AM3	35.0	4300-5070	0	49	SH	S3	650	
36KD6‡	35.0	1C50-0324	75	....	X4	S5	900	Cap.-P CAP.-P, USE ADAPTER SA-4, [illegible]
36MC6‡	35.0	4520-0738	75	....	X4	S5	900	
Model 752A: No Adapter Required.								
38HE7‡	50.0	1C90-5880	61	—	X10	S5	200	PENT. SECT. SET "LINE ADJUST" TO [illegible] ON 1000 SCALE
38HE7	50.0	1C00-2040	0	82	SH	S1	500	Diode Sect.
38HK7‡	35.0	1C90-5880	60	—	X4	S5	625	Pent. Sect.
38HK7	35.0	1C00-2040	0	88	SH	S1	400	Diode Sect.
40FR5	35.0	3420-7610	40	—	X4	S5	600	
40KD6‡	35.0	1C50-0324	75	—	X4	S5	900	Cap.-P USE ADAPTER SA-4, [illegible] CONNECT CAP TO EXT. SELF BIAS RES. JACKS MODEL 752A—CAP.-P CAP.-P, SET "LINE ADJUST" AT 85 ON 200 SCALE
42EC4	50.0	4500-7000	0	66	SH	S3	350	
Model 752A:								
42KN6‡	50.0	1C50-0324	64	....	X10	S5	300	
50BM8	50.0	4530-6720	26	....	X4	S5	625	Pent. Sect.
50BM8	50.0	4510-9080	0	....	X2	S5	775	Triode Sect.
50C5	50.0	4320-7610	13	—	X10	—	475	HOLD DOWN S1 AND PRESS S3
50DC4	50.0	4300-5070	0	54	SH	S3	650	
50EH5	50.0	4320-7610	13	....	X10	S5	650	
50FE5	50.0	7250-3480	30	....	X10	S5	400	
50FK5	50.0	4320-7610	21	....	X4	S5	750	
50GY7‡	50.0	1CA0-5B80	34	....	X10	—	450	PENT. SECT. HOLD DOWN S1 AND PRESS S3
50GY7	50.0	1C00-2040	0	76	SH	S3	400	Diode Sect.
50HC6	50.0	3420-7510	13	....	X10	S5	650	
50HK6	50.0	4320-7510	13	....	X10	—	475	HOLD DOWN S3 AND PRESS S5
50HN5	50.0	4520-7930	21	....	X10	S5	625	
53HK7‡	50.0	1C90-5880	60	....	X4	S5	625	Pent. Sect.
53HK7	50.0	1C00-2040	0	88	SH	S1	400	Diode Sect.
58HE7‡	50.0	1C90-5880	58	....	X10	S5	200	Pent. Sect.
58HE7	50.0	1C00-2040	0	85	SH	S1	500	Diode Sect.

TUBE TYPE	FIL.	SELECTORS	BIAS	SHUNT	MULT	PRESS	MINIMUM MUT COND	NOTATIONS
60FX5	50.0	4320-7610	15	....	X10	S5	475	
60HL5	50.0	4520-7930	28	....	X20	S5	400	SET "LINE ADJUST" TO [illegible] ON 1000 SCALE
KT66	6.3	7250-3481	20	....	X10	S5	400	
80	5.0	4100-3000	0	36	SH	S3	400	Plate No. 1
80	5.0	4100-2000	0	27	SH	S3	400	Plate No. 2
83	5.0	4100-3000	0	60	SH	S3	650	Plate No. 1
83	5.0	4100-2000	0	57	SH	S3	650	Plate No. 2
85A1	See 0E3—Top of Chart							
85A2	See 0G3—Top of Chart							
ECC88	6.3	4572-6183	20	....	X10	S5	775	‡Dual Triode
KT88	6.3	7250-3481	13	....	X20	S5	225	
90C1	OFF	0000-5070	....	....	VR	†S9	90V	†R: 1W. REGULATION—11 VOLTS FROM 1 TO 10 MA. ±1W Y. REGULATION—5 VOLTS FROM 5 TO 15 MA.
150B2	OFF	0000-1020	....	....	VR	†S9	150V	
274A	5.0	1400-2000	0	60	SH	S3	400	Plate No. 1
274A	5.0	1400-3000	0	40	SH	S3	400	Plate No. 2
286A	2.0	1600-2354	30	....	X2	S5	200	Cap.-G
CAA322	6.3	7200-5000	0	58	SH	S3	400	USE NICKOR ADAPTER CODE NO. [illegible]
328A	7.5	1600-2354	18	....	X2	S5	575	Cap.-G
349A	6.3	2750-3480	10	....	X4	S5	575	
446A	OFF	0000-5710	....	....	VR	†S9	81V	±87. REGULATION—1.5 V FROM 5 TO 40 MA. RIGHT CAP.—P USE NICKOR ADAPTER SA-4 CODE NO. [illegible]
829B	6.3	5762-0340	15	....	X10	S5	475	
829B	6.3	5126-0340	15	....	X10	S5	475	Left Cap.-P
832A	6.3	5762-0340	28	....	X4	S5	650	RIGHT CAP.—P USE NICKOR ADAPTER SA-4 CODE NO. [illegible]
832A	6.3	5126-0340	28	....	X4	S5	650	Left Cap.-P
836	4.3	4100-0000	0	55	SH	S3	650	Cap.-P
866A	4.3	4100-0000	0	50	SH	S3	650	Cap.-P
874	OFF	0000-3010	....	....	VR	†S9	90V	±10 V. REGULATION—7 VOLTS FROM 10 TO 30 MA.
884	6.3	7250-3080	#	93	SH	S6	650	STRIKES AT ABOUT 7K
885	2.5	5130-2040	#	93	SH	S6	650	STRIKES AT ABOUT 3K
991	OFF	0000-3060	....	....	VR	†S9	53V	USE NICKOR ADAPTER CODE NO. [illegible] ±53 V. MAX. REGULATION—5 VOLTS MAX. FROM 5 MA TO 25 MA. TUBE DROP MIN.—45 V. TUBE DROP MAX.—53 V.
991	OFF	0000-6030	....	....	VR	†S9	53V	±47 V. MAX. REGULATION—5 VOLTS MAX. FROM 5 MA TO 25 MA. TUBE DROP MIN.—45 V. TUBE DROP MAX.—53 V.
1217	6.3	4370-5621	0	....	X2	—	475	±MPL. SECT. HOLD DOWN S1 AND PRESS S5
1217	6.3	4310-5627	0	....	X2	S5	475	Osc. Sect.
1218A	6.3	3460-7050	12	....	X10	S5	750	
1222	6.3	6140-2378	17	....	X10	S5	300	
1655	6.3	7843-5260	12	....	X4	S5	200	‡Dual Triode
2050	6.3	7250-3086	#	93	SH	S6	650	STRIKES AT ABOUT 3K
2051	6.3	7250-3086	#	93	SH	S6	650	STRIKES AT ABOUT 2K
4604	6.3	2750-0300	45	....	X4	S5	500	Cap.-P
5636	6.3	3610-5724	11	....	X4	S5	300	
5642	1.1	1200-0000	0	....	X1	S3	400	TOP—P. CONNECT FIL. LEADS TO PINS 1 AND 2

TUBE TYPE	FIL.	SELECTORS	BIAS	SHUNT	MULT	PRESS	MINIMUM NUT CORD	NOTATIONS
5643	6.3	3670-1052	#	50	SH	S3	650	STRIKES AT ABOUT 70
5644	OFF	0000-1020	---	---	VR	†S9	95V	±1% V. REGULATION—5 VOLTS FROM 5 TO 25 MA.
5651	OFF	0000-1070	---	---	VR	†S9	87V	±1% V. REGULATION—5 VOLTS FROM 15 TO 45 MA.
5654	6.3	4310-5620	10	---	X4	S5	675	
5656	6.3	4523-8197	11	---	X10	S5	375	Tetrode No. 1
5656	6.3	4632-7198	11	---	X10	S5	375	Tetrode No. 2
5670	6.3	9173-6482	16	---	X10	S5	300	†Dual Triode
5672	1.1	3540-1200	27	---	X1	S5	300	
5675	6.3	2730-5060	18	---	X10	S5	400	USE NICKOR ADAPTER EA-4 CODE NO. 1000-171
5676	1.1	4230-1000	26	---	X2	S5	500	
5677	1.1	4230-1000	38	---	X2	S5	200	
5678	1.1	3540-1200	8	---	X1	S5	525	
5686	6.3	4520-7630	10	---	X4	S5	475	
5687	12.6	4572-9163	28	---	X10	S5	475	†Dual Triode
5696	6.3	4310-6025	#	94	SH	S6	650	STRIKES AT ABOUT 21
5702	6.3	3470-1265	10	---	X4	S5	675	
5703	6.3	3450-1060	22	---	X10	S5	300	
5704	6.3	2300-1040	0	80	SH	S1	400	
5718	6.3	3610-8057	10	---	X10	S4	350	
5719	6.3	3610-8057	10	---	X4	S5	350	
5725	6.3	4310-5627	0	---	X2	S5	550	
5726	6.3	4300-7215	0	78	SH	S1	400	†Dual Diode
5727	6.3	4310-6025	#	94	SH	S6	650	STRIKES AT ABOUT 21
5744	6.3	2340-1050	7	---	X10	S5	250	
5749	6.3	4310-5672	0	---	X4	S5	500	
5750	6.3	4370-5621	0	---	X2	---	250	SAMPL. SELECT. HOLD DOWN S1 AND PRESS S5
5750	6.3	4310-6027	20	---	X10	S5	400	Osc. Sect.
5751	12.6	4572-6183	14	---	X4	S5	200	†Dual Triode
5755	12.6	4563-8172	0	---	X4	S5	225	†Dual Triode
5763	6.3	4590-1673	0	---	X10	S5	425	
5783	OFF	0000-3050	---	---	VR	†S9	87V	±1% V. REGULATION —1 VOLTS FROM 1.5 TO 5.5 MA.
5784	6.3	3470-1265	16	---	X4	S5	275	
5787	OFF	0000-3050	---	---	VR	†S9	100V	±1% V. REGULATION —1 VOLTS FROM 5 TO 30 MA.
5812	*6.3	4310-5602	28	---	X4	S5	650	
5814	12.6	4572-6183	25	---	X2	S5	675	†Dual Triode
5824	25.0	7250-3480	20	---	X10	S4	300	
5825	1.4	4100-0000	0	0	SH	S6	250	Cap-P
5829	6.3	3500-6172	0	78	SH	S1	400	†Dual Diode
5840	6.3	3610-5740	16	---	X4	S5	475	
5842	6.3	3950-1060	19	---	X20	S5	375	
5844	6.3	4356-2170	24	---	X4	S5	525	†Dual Triode
5847	6.3	3910-6640	13	---	X20	S5	300	
5852	6.3	7200-5380	0	35	SH	S3	400	†Dual Diode
5876	6.3	2730-5060	11	---	X10	S5	325	USE NICKOR ADAPTER EA-4 CODE NO. 1000-171
5881	6.3	7250-3481	17	---	X10	S5	300	
5893	6.3	7230-5060	16	---	X10	S5	375	USE NICKOR ADAPTER EA-4 CODE NO. 1000-171
5894	12.6	1762-0340	35	---	X4	S5	625	RIGHT CAP-P USE NICKOR ADAPTER EA-4 CODE NO. 1000-197
5894	12.6	1726-0340	35	---	X4	S5	625	Left Cap-P
5896	6.3	3600-5172	0	40	SH	S3	650	†Dual Diode
5897	6.3	3610-8050	19	---	X10	S5	300	
5899	6.3	3610-5740	13	---	X4	S5	475	
5900	6.3	3610-5740	13	---	X4	S5	475	
5902	6.3	3610-5720	40	---	X4	S5	650	
5903	25.0	3600-5172	0	40	SH	S3	650	†Dual Diode
5904	25.0	3610-8050	20	---	X4	S4	475	
5905	25.0	3610-5720	30	---	X2	S5	500	
5906	25.0	3610-5720	13	---	X4	S5	475	
5907	25.0	3610-5720	15	---	X4	S4	350	
5908	25.0	3610-5724	8	---	X4	S4	275	
5915A	6.3	4370-5621	0	---	X2	---	475	SAMPL. SELECT. HOLD DOWN S1 AND PRESS S5
5915A	6.3	4310-5627	0	---	X2	S5	475	Osc. Sect.
5916	25.0	3610-5724	20	---	X4	S5	250	Grid No. 1
5916	25.0	3640-5721	20	---	X2	---	225	GRID NO. 2 HOLD DOWN S1 AND PRESS S5
5930	2.5	4130-2000	74	---	X4	S5	475	
5931	5.0	8200-6000	0	35	SH	S3	650	Plate No. 1
5931	5.0	8200-4000	0	30	SH	S3	650	Plate No. 2
5932	6.3	7250-3481	17	---	X10	S5	300	
5933	6.3	5130-0240	28	---	X4	S6	600	Cap-P
5961	6.3	7250-3468	Use This Setting For Short Check Only.					
5961	6.3	7250-4068	30	---	X4	S5	625	DO NOT CHECK FOR SHORTS.
5963	12.6	4572-6183	17	---	X4	S5	425	†Dual Triode
5964	6.3	4356-2170	21	---	X4	S5	625	†Dual Triode
5965	12.6	4572-6183	15	---	X10	S5	400	†Dual Triode
5971	1.1	5320-1000	20	---	X4	S5	225	
5975	6.3	4530-1020	29	---	X4	S5	625	
5977	6.3	3610-8053	30	---	X4	S5	625	
5987	6.3	3610-2050	39	---	X2	S4	575	
5993	6.3	3700-9150	0	30	SH	S3	650	†Dual Diode
5995	6.3	4300-1050	0	30	SH	S3	650	Leads 1-3-4-5
5998	7.5	7841-5263	37	---	X20	S4	425	†Dual Triode
6005	6.3	4310-5620	18	---	X4	S5	575	
6012	6.3	7230-6018	#	93	SH	S6	650	STRIKES AT ABOUT 80
6021	6.3	3672-8154	15	---	X10	S5	325	†Dual Triode
6028	20.0	4310-5620	10	---	X4	S5	675	
6046	25.0	7250-3481	25	---	X10	---	375	HOLD DOWN S1 AND PRESS S5
6050	1.1	4230-1000	32	---	X4	S5	200	
6051	1.1	3540-1200	39	---	X1	S4	350	
6052	6.3	3600-5172	0	40	SH	S3	650	†Dual Diode
6053	25.0	3600-5172	0	40	SH	S3	650	†Dual Diode
6055	25.0	3610-8050	20	---	X4	S4	475	
6056	25.0	3610-5720	15	---	X4	S4	350	
6058	6.3	4300-7215	0	78	SH	S1	400	†Dual Diode
6064	6.3	3410-5726	11	---	X10	S5	300	
6072	12.6	4572-6183	15	---	X4	S5	275	†Dual Triode

TUBE TYPE	FIL	SELECTORS	BIAS	SHUNT	MULT	PRESS	MINIMUM MUT COND	NOTATIONS
6073	OFF	0000–5020	....	....	VR	†S9	150V	★150 V. REGULATION—2 VOLTS FROM 5 TO 30 MA.
6074	OFF	0000–5020	....	....	VR	†S9	108V	★108 V. REGULATION—1 VOLT FROM 5 TO 30 MA.
6080	7.5	7841–5263	55	....	X4	S4	625	‡Dual Triode
6082	25.0	7841–5263	55	....	X4	S4	625	‡Dual Triode
6084	6.3	4590–6138	15	....	X2	S5	575	
6085	12.6	4572–6183	17	....	X4	S5	425	‡Dual Triode
6086	20.0	4520–6139	10	....	X10	S5	550	
6096	6.3	4310–5620	10	....	X4	S5	675	
6097	6.3	4300–7215	0	78	SH	S1	400	‡Dual Diode
6098	6.3	6870–3510	17	....	X10	S5	325	
6110	6.3	3600–5172	0	70	SH	S1	400	‡Dual Diode
6111	6.3	3672–8154	8	....	X10	S4	300	‡Dual Triode
6112	6.3	3672–8154	15	....	X4	S5	400	‡Dual Triode
6134	6.3	7240–8653	13	....	X10	S5	375	
6135	6.3	4360–1070	25	....	X2	S5	675	
6136	6.3	4310–5672	10	....	X4	S5	475	
6137	6.3	7240–8653	10	....	X4	S5	300	
6146	6.3	7250–0318	12	....	X10	S4	425	Cap=P
6148	6.3	3470–1265	10	....	X4	S5	675	
6152	6.3	4530–1020	29	....	X4	S5	625	
6159	25.0	7250–0318	12	....	X10	S4	425	Cap=P
6173	6.3	2700–5060	0	75	SH	S1	400	USE HICKOK ADAPTER EA-9 CODE NO. 1050-121
6186	6.3	4310–5620	10	....	X4	S5	525	
6189	12.6	4572–6183	25	....	X2	S5	675	‡Dual Triode
6197	6.3	4520–6317	12	....	X10	S5	475	
6201	12.6	4572–6183	14	....	X4	S5	625	‡Dual Triode
6202	6.3	4300–6170	0	0	SH	S3	650	‡Dual Diode
6203	6.3	4500–9170	0	18	SH	S3	650	‡Dual Diode
6205	6.3	3610–5724	16	....	X4	S5	475	
6206	6.3	3610–5724	13	....	X4	S5	475	
6211	12.6	4572–6183	23	....	X4	S5	550	‡Dual Triode
6213	OFF	0000–3050	....	....	VR	†S9	130V	★130 V. REGULATION—5 VOLTS FROM 5 TO 25 MA.
6216	6.3	4520–1730	0	....	X10	S4	550	
6221	6.3	3610–8050	20	....	X10	S5	525	
6222	6.3	3610–8050	21	....	X2	S5	275	
6223	6.3	3610–5780	16	....	X4	S5	475	
6225	6.3	3610–5720	16	....	X4	S5	475	
6245	6.3	3470–1265	10	....	X4	S5	675	
6247	6.3	3620–8050	11	....	X4	S5	300	
6263	6.3	7230–5060	16	....	X10	S5	450	USE HICKOK ADAPTER EA-9 CODE NO. 1050-121
6264	6.3	7230–5060	16	....	X10	S5	450	USE HICKOK ADAPTER EA-9 CODE NO. 1050-121
6265	6.3	4310–5627	10	....	X4	S5	425	
R6279	6.3	7200–0080	0	30	SH	S3	650	Top Washer=P
6286	1.4	4230–1000	22	....	X2	S4	625	
6293	6.3	7250–0310	0	....	X10	S4	400	Cap=P
6308	OFF	0000–3010	....	....	VR	†S9	87V	★90 V. REGULATION—2 VOLTS FROM 1.5 TO 15 MA.
6332	OFF	0000–1020	....	....	VR	†S9	63V	★63 V. REGULATION—5 VOL FROM 1.5 TO 15 MA. LEADS IN PIN POS. 1-2.
6350	12.6	4583–6172	27	....	X10	S5	275	‡Dual Triode
6354	OFF	0000–1020	....	....	VR	†S9	150V	★150 V. REGULATION—5 VOLTS FROM 5 TO 25 MA.
6360	12.6	4531–6720	13	....	X4	S5	500	Tetrode No. 1
6360	12.6	4513–6720	13	....	X4	S5	500	Tetrode No. 2
6384	6.3	6870–3510	17	....	X10	S5	325	
6386	6.3	9173–6482	23	....	X4	S5	625	‡Dual Triode
6397	2.5	7180–3600	29	....	X2	S5	600	
6414	12.6	4572–6183	15	....	X10	S5	350	‡Dual Triode
6417	12.6	4590–1673	0	....	X10	S5	425	
6418	1.4	3500–2041	0	0	SH	S1	175	MAKE NO GAS TEST
6463	12.6	4583–6172	24	....	X10	S5	300	‡Dual Triode
6485	6.3	4310–5672	13	....	X10	S5	375	
6519	1.4	3540–1200	20	....	X1	S5	350	MAKE NO GAS TEST
6520	7.5	7841–5263	55	....	X4	S4	625	‡Dual Triode
6524	6.3	5362–0740	15	....	X4	S5	700	CAP OVER METAL PINS 2-3=P
6524	6.3	5326–0140	15	....	X4	S5	700	CAP OVER OCTAL PINS 6-7=P
	Use Hickok Adapter Code No. 1050–107							
6526	1.1	3540–1200	35	....	X2	S5	800	
6533	6.3	6720–1050	21	....	X2	S5	300	
6540	6.3	3470–1265	10	....	X4	S5	675	
6542	OFF	0000–3050	....	....	VR	†S9	150V	★135 V. REGULATION—5 VOLTS FROM 5 TO 25 MA. LEADS—1,2,3. OUTSIDE LEADS—K
6611	1.4	3500–2041	0	0	SH	S1	300	MAKE NO GAS TEST
6612	1.4	3500–2041	0	45	SH	S1	400	MAKE NO GAS TEST
6626	OFF	0000–5020	....	....	VR	†S9	150V	★135 V. REGULATION—2 VOLTS FROM 5 TO 30 MA.
6627	OFF	0000–5020	....	....	VR	†S9	108V	★112 V. REGULATION—1.5 V. FROM 5 TO 30 MA.
6659	OFF	0000–1050	0	0	SH	S2	650	
6660	6.3	4310–5672	0	....	X4	S5	500	
6661	6.3	4310–5627	10	....	X4	S5	425	
6662	6.3	4310–5627	10	....	X2	S5	775	
6663	6.3	4300–7215	0	78	SH	S1	400	‡Dual Diode
6664	6.3	4360–1070	14	....	X4	S5	625	
6669	6.3	4310–5620	18	....	X4	S5	575	
6676	6.3	4310–5627	10	....	X4	S5	700	
6677	6.3	4520–6317	12	....	X10	S5	475	
6678	6.3	4520–6370	12	....	X4	S5	475	Pent. Sect.
6678	6.3	4590–1080	10	....	X10	S5	525	Triode Sect.
6679	12.6	4572–6183	14	....	X4	S5	625	‡Dual Triode
6680	12.6	4572–6183	25	....	X2	S5	675	‡Dual Triode
6681	12.6	4572–6183	14	....	X4	S5	200	‡Dual Triode
6688	6.3	4520–7918	8	....	X10	S5	600	
6690	6.3	3672–5184	13	....	X10	S5	300	‡Dual Triode
6754	6.3	4500–9173	0	45	SH	S3	650	‡Dual Diode
6761	6.3	4520–1730	31	....	X10	S5	475	
6789	6.3	3610–5720	17	....	X2	S5	250	

TUBE TYPE	FIL	SELECTORS	BIAS	SHUNT	MULT	PRESS	MINIMUM MUT COND	NOTATIONS
6814	6.3	3610-8050	24	—	X4	S5	650	
6829	12.6	4572-6183	16	—	X10	S5	425	‡Dual Triode
6832	6.3	3672-8154	27	—	X2	S5	325	‡Dual Triode
6850	12.6	5362-0740	15	—	X4	S5	700	CAP OVER OCTAL PINS 2-3-P
6850	12.6	5326-0140	15	—	X4	S5	700	CAP OVER OCTAL PINS 6-7-P
	Use Hickok Adapter Code No. 1050-107							
6872	6.3	3470-1265	17	—	X2	S5	700	
6883	12.6	7250-0318	12	—	X10	S4	425	Cap-P
6887	6.3	4300-7215	0	78	SH	S1	400	‡Dual Diode
6889	6.3	6870-0510	17	—	X10	S5	325	Cap-P
6900	12.6	4572-9163	28	—	X10	S5	475	‡Dual Triode
6919	6.3	4300-7215	0	78	SH	S1	400	‡Dual Diode
6922	6.3	4572-6183	21	—	X10	S5	675	‡Dual Triode
6928	6.3	4310-5620	18	—	X4	S5	575	
6939	12.6	4531-8720	12	—	X10	S5	425	Tetrode No. 1
6939	12.6	4513-6720	12	—	X10	S5	425	Tetrode No. 2
6943	6.3	3610-5724	11	—	X4	S5	475	
6944	6.3	3610-5724	9	—	X4	S5	475	
6945	6.3	3610-5720	44	—	X4	S5	450	
6946	6.3	3610-8050	27	—	X4	S5	600	
6947	6.3	3672-8154	17	—	X4	S5	625	‡Dual Triode
6948	6.3	3672-8154	16	—	X4	S5	300	‡Dual Triode
6973	6.3	4530-9170	14	—	X10	S5	300	
7000	6.3	7200-3486	21	—	X2	S5	375	Cap-G
7025	12.6	4572-6183	14	—	X4	S5	200	‡Dual Triode
7027	6.3	7250-3180	17	—	X10	S5	300	
7036	6.3	4370-5621	0	—	X2	—	375	SIMPLE SECT. HOLD DOWN S1 AND PRESS S2
7036	6.3	4310-5627	0	—	X2	S5	375	Osc. Sect.
7044	12.6	4572-9163	28	—	X10	S5	475	‡Dual Triode
7054	12.6	4520-7813	0	—	X10	S5	500	
7055	12.6	4300-7215	0	78	SH	S1	400	‡Dual Diode
7056	12.6	4310-5627	10	—	X4	S5	700	
7057	12.6	4572-6183	17	—	X10	S5	425	‡Dual Triode
7058	12.6	4572-6183	14	—	X4	S5	200	‡Dual Triode
7059	12.6	4520-6370	12	—	X4	S5	475	Pent. Sect.
7059	12.6	4590-1080	10	—	X10	S5	525	Triode Sect.
7060	12.6	4580-6790	11	—	X4	S5	725	Pent. Sect.
7060	12.6	4520-1030	16	—	X4	S5	600	Triode Sect.
7061	12.6	4530-9170	18	—	X4	S5	575	
7119	12.6	5472-9163	17	—	X20	S5	500	‡Dual Triode
7137	6.3	4360-7020	15	—	X20	S5	350	
7167	12.6	4310-5620	12	—	X4	—	525	HOLD DOWN S1 AND PRESS S2
7189	6.3	5420-7930	12	—	X10	S5	575	
7199	6.3	4570-2360	7	—	X10	S5	375	Pent. Sect.
7199	6.3	4590-1080	29	—	X2	S5	650	Triode Sect.
7212	6.3	7250-0318	12	—	X10	S4	425	Cap-P
7233	6.3	4520-9080	29	—	X20	S4	550	
7235	7.5	7841-5263	40	—	X10	S4	550	‡Dual Triode
7239	6.3	4510-0697	30	—	X4	S5	350	Cap-P
7247	12.6	4570-6080	14	—	X4	S5	200	Triode No. 1
7247	12.6	4520-1030	25	—	X2	S5	675	Triode No. 2
7258	12.6	4580-6791	10	—	X10	S5	375	Pent. Sect.
7258	12.6	4520-1736	21	—	X4	S5	700	Triode Sect.
7308	6.3	4572-6183	21	—	X10	S5	675	‡Dual Triode
7316	12.6	4572-6183	25	—	X2	S5	675	‡Dual Triode
7355	6.3	7250-3850	10	—	X10	S5	475	
7357	25.0	7250-0318	12	—	X10	S4	425	Cap-P
7358	6.3	7250-0318	12	—	X10	S4	425	Cap-P
7360	6.3	4530-6219	16	—	X2	S5	650	CONNECT PIN 1 TO PIN 5 AND PIN 6 TO PIN 7 ON LOCTAL SOCKET.
7370	20.0	5870-9060	28	—	X10	S5	475	Triode No. 1
7370	20.0	8420-1030	28	—	X10	S5	475	Triode No. 2
7408	6.3	7250-3481	18	—	X4	S5	575	
7543	6.3	4310-5672	10	—	X4	S5	475	
7551	12.6	4520-6317	23	—	X10	S5	375	
7558	6.3	4520-6317	23	—	X10	S5	375	
7581	6.3	2750-3480	17	—	X10	S5	375	
7586‡	6.3	3140-2080	13	—	X10	S4	600	SEE ADAPTER SA-3, 1000-127
Model 752A:								
7586	6.3	AC40-2080	13	—	X10	S4	600	
7587‡	6.3	3140-0280	10	—	X10	—	450	CAP-P. HOLD DOWN S1 AND PRESS S2. SEE ADAPTER SA-3, 1000-127
Model 752A:								
7587	6.3	AC40-0280	10	—	X10	—	450	CAP-P. HOLD DOWN S1 AND PRESS S2.
7591	6.3	7260-3450	10	—	X10	S5	500	
7683	6.3	4510-3820	10	—	X2	S5	500	
7687	6.3	4520-6370	10	—	X4	S5	550	Pent. Sect.
7687	6.3	4590-1080	28	—	X4	S5	425	Triode Sect.
7695	50.0	4560-9170	34	—	X10	S5	450	
7700	6.3	6100-2354	21	—	X2	S5	375	Cap-G
7701	12.6	5420-6910	11	—	X4	S5	550	
7716	12.6	4570-9860	12	—	X10	S5	425	Pent. Sect.
7716	12.6	4520-3010	12	—	X2	S5	575	Triode Sect.
7717	6.3	4310-5620	12	—	X4	—	625	HOLD DOWN S1 AND PRESS S2.
7719	12.6	5420-1030	30	—	X4	S5	450	
7724	12.6	4580-9070	10	—	X2	S5	250	Triode Sect.
7724	12.6	4600-2631	0	78	SH	S1	400	‡Dual Diode
7728	12.6	4572-6183	14	—	X4	S5	625	‡Dual Triode
7729	12.6	4572-6183	14	—	X4	S5	200	‡Dual Triode
7730	12.6	4572-6183	25	—	X2	S5	675	‡Dual Triode
7731	6.3	4520-6370	12	—	X4	S5	475	Pent. Sect.
7731	6.3	4590-1080	10	—	X10	S5	525	Triode Sect.
7732	6.3	4310-5627	10	—	X4	S5	700	
7733	12.6	4520-7813	0	—	X10	S5	500	
7734	6.3	4580-9170	15	—	X2	S5	650	Pent. Sect.
7734	6.3	4530-6020	68	—	X4	S5	550	Triode Sect.
7737	6.3	4520-7918	8	—	X10	S5	600	
7738	6.3	4320-1050	13	—	X10	S5	475	
7754	6.3	4560-9170	34	—	X10	S5	450	
7757	6.3	3560-0280	18	—	X4	S5	575	Cap-P
7759	25.0	3672-8154	15	—	X10	S5	325	‡Dual Triode
7760	25.0	3672-8154	20	—	X4	S4	475	‡Dual Triode
7761	25.0	3610-5720	15	—	X10	S5	450	

TUBE TYPE	FIL.	SELECTORS	BIAS	SHUNT	MULT.	PRESS.	MINIMUM MUT. COND.	NOTATIONS
7762	25.0	3610-5720	40	—	X4	S5	650	
7802	6.3	7841-5263	45	—	X20	S5	500	‡Dual Triode
7803	6.3	4572-6183	20	—	X10	S5	775	‡Dual Triode
7861	12.6	9173-6482	16	—	X10	S5	300	‡Dual Triode
7867	6.3	7250-0830	26	—	X10	—	525	CAP—P, BOLD 11 AND PRESS 25
{7868‡	6.3	4560-9730	11	—	X10	S5	525	USE ADAPTER(S) 4-4, 1000-144
Model 752A:		No Adapter Required.						
7889	25.0	3672-8154	15	—	X4	S5	400	‡Dual Triode
{7895‡	6.3	3140-2080	16	—	X10	S5	525	USE ADAPTER 54-3, 1000-127
Model 752A:								
7895	6.3	AC40-2080	16	—	X10	S5	525	
7898	12.6	4572-6183	10	—	X10	S5	475	‡Dual Triode
7905	6.3	9120-6807	15	—	X10	S5	325	
7984‡	12.6	1CA0-3890	46	—	X10	S5	350	
7995	6.3	1430-7826	11	—	X10	S5	650	
8032	12.6	7250-0318	12	—	X10	S4	425	Cap—P
{8056‡	6.3	3100-2084	0	70	SH	S1	650	MAKE NO BIAS TEST USE ADAPTER 54-3, 1000-127
Model 752A:								
8056	6.3	AC00-2084	0	70	SH	S1	650	MAKE NO BIAS TEST
{8058‡	6.3	1300-0020	13	—	X10	S5	625	CAP—P, B-SHELL USE ADAPTER 54-3, 1000-123
Model 752A:								
8058	6.3	AC00-0020	13	—	X10	S5	625	CAP—P, B-SHELL
8064	25.0	6310-5780	17	—	X4	S5	400	
8068	6.3	2750-0830	18	—	X10	S5	325	Cap—P
8077	12.6	4520-7813	0	—	X10	S5	500	
8084	12.6	3410-5627	17	—	X10	S5	400	
8096	6.3	6720-1050	21	—	X2	S5	300	
{8102	12.6	4590-6780	11	—	X4	S5	625	Pent. Sect.
{8102	12.6	4530-1020	13	—	X10	S5	525	Triode Sect.
8106	12.6	4570-1890	14	—	X10	S5	500	
8113	6.3	4310-5670	22	—	X4	S5	550	
8136	6.3	4310-5627	10	—	X10	S5	400	
8149‡	12.6	1CA0-7890	50	—	X4	S5	700	
8150‡	12.6	1CA0-0860	50	—	X4	S5	700	Cap—P
8156‡	12.6	1CA0-3760	31	—	X4	S5	625	
8185	6.3	8120-3060	20	—	X20	S5	650	
8186	25.0	8120-3060	20	—	X20	S5	650	
{8203‡	6.3	3140-2080	26	—	X10	S5	300	USE ADAPTER 54-3, 1000-127
Model 752A:								
8203	6.3	AC40-2080	26	—	X10	S5	300	
8236	6.3	7210-0430	65	—	X4	S5	450	Cap—P
8298	6.3	7250-0318	12	—	X10	S4	425	Cap—P
8327	6.3	4520-7930	23	—	X10	S5	375	
8334	6.3	3460-7050	12	—	X10	S5	750	
{8393‡	12.6	3140-2080	24	—	X10	S5	500	USE ADAPTER 54-3, 1000-127
Model 752A:								
8393	12.6	AC40-2080	24	—	X10	S5	500	
8417	6.3	2750-3480	10	—	X20	S5	375	
8425	6.3	4310-5672	10	—	X10	S5	625	
8426	12.6	4310-5672	10	—	X10	S5	625	
8431	12.6	5472-6183	20	—	X20	S5	500	‡Dual Triode

TUBE TYPE	FIL.	SELECTORS	BIAS	SHUNT	MULT.	PRESS.	MINIMUM MUT. COND.	NOTATIONS
{8445	6.3	4520-6370	10	—	X4	S5	750	Pent. Sect.
{8445	6.3	4590-1080	28	—	X4	S5	800	Triode Sect.
{8446	6.3	4590-6780	10	—	X10	S5	300	Pent. Sect.
{8446	6.3	4510-2030	14	—	X10	S5	425	Triode Sect.
{8489	6.3	4580-6790	11	—	X10	S5	350	Pent. Sect.
{8489	6.3	4520-1030	21	—	X10	S5	300	Triode Sect.
8532	6.3	4310-7020	15	—	X20	S5	350	
8552	12.6	7250-0318	12	—	X10	S5	425	Cap—P
{8628‡	6.3	3140-2080	12	—	X1	S4	625	USE ADAPTER 54-3, 1000-127
Model 752A:								
8628	6.3	AC40-2080	12	—	X1	S4	625	
{AX9903	12.6	1762-0340	35	—	X4	S5	625	RIGHT CAP—P USE HARDEE ADAPTER 54-3 CODE NO. 1000-147
{AX9903	12.6	1726-0340	35	—	X4	S5	625	Left Cap—P

Supplementary Tube Test Data for Obsolete Tube Types

TUBE TYPE	FIL.	SELECTORS	BIAS	SHUNT	MULT.	PRESS	MIN. MUT.COND.		NOTATIONS
1A4	2.0	4100-2300	18	---	X2	---	225		CAP=G. Hold down S1 and Press S5
1A6	2.0	6100-2504	12	---	X2	---	225		Pent. Sect. CAP = G Hold down S1 and Pres
1A6	2.0	6140-3502	25	---	X1	S5	125		Osc. Sect.
1AB5	1.1	8160-2300	0	---	X2	S5	375		
1B5	2.0	6150-2000	10	---	X1	S5	350		Triode Sect.
1B5	2.0	6100-4300	0	40	SH	S1	400	X	Dual Diode
1B7	1.4	7200-3405	4	---	X2	---	300		Pent. Sect. CAP = G Hold down S1 and Pres
1B7	1.4	7250-6403	17	---	X2	---	200		Osc. Sect. Hold down S1 and Press S5
1C6	2.0	6100-2534	13	---	X2	---	250		Ampl. Sect. CAP = G Hold down S1 and Pres
1C6	2.0	6140-3520	28	---	X1	S5	150		Osc. Sect.
1C7	2.0	7200-3465	13	---	X2	---	250		Pent. Sect. CAP = G Hold down S1 and Pres
1C7	2.0	7250-6430	28	---	X1	S5	150		Osc. Sect.
1C8	1.1	4520-7608	40	---	X1	S5	175		
1D7	2.0	7200-3465	12	---	X2	---	225		Pent. Sect. CAP = G Hold down S1 and Pres
1D7	2.0	7250-6430	25	---	X1	S5	125		Osc. Sect.
1D8	1.4	7250-3460	18	---	X2	---	275		Pent. Sect. Hold dow S1 and Press S5
1D8	1.4	7200-6000	0	---	X1	S5	350		Triode Sect. CAP = G
1D8	1.4	7200-8000	0	0	SH	S1	400		Diode Sect.
1E4	1.4	7250-3000	25	---	X2	S5	375		
1E5	2.0	7200-3400	15	---	X1	S5	400		CAP = G
1E7	2.0	7250-6834	11	---	X2	S5	350		Pent. No. 1
1E7	2.0	7240-3865	11	---	X2	S5	350		Pent. No. 2
1F4	2.0	5130-2400	22	---	X2	S5	425		
1F5	2.0	7250-3400	22	---	X2	S5	425		
1F6	2.0	6100-2300	8	---	X2	---	200		Pent. Sect. CAP = G Hold down S1 and Pres
1F6	2.0	6100-5400	8	0	SH	S1	400	X	Dual Diode
1F7	2.0	7200-3600	8	---	X2	---	200		Pent. Sect. CAP = G Hold down S1 and Pres
1F7	2.0	7200-4530	8	0	SH	S1	400	X	Dual Diode
1G4	1.4	7250-3000	48	---	X2	S5	250		
1G5	2.0	7250-3040	16	---	X2	---	475		Hold down S1 and Pres
1G6	1.4	7254-6300	19	---	X2	S5	200	X	Dual Triode
1H4	2.0	7250-3000	40	---	X2	S5	275		
1J5	2.0	7250-3400	46	---	X2	S5	300		
1J6	2.0	7254-6300	23	---	X2	S5	300	X	Dual Triode
1LB6	1.4	8160-2437	Use this setting for Short Check only						
1LB6	1.4	8160-3574	28	---	X1	S5	300		
1N6	1.4	7250-3400	40	---	X2	S5	250		Pentode Sect.
1N6	1.4	7200-6000	0	0	SH	S1	400		Diode Sect.
1P5	1.4	7200-3400	12	---	X2	S5	250		CAP = G
1R4	1.4	8100-4070	0	48	SH	S1	400		

Supplementary Tube Test Data for Obsolete Tube Types

TUBE TYPE	FIL	SELECTORS	BIAS	SHUNT	MULT.	PRESS	MIN. MUT. COND.	NOTATIONS
1SA6	1.4	7240-8630	0	---	X2	---	250	Hold down S1 and Press
1SB6	1.4	7280-3400	12	---	X1	S5	400	Pentode Sect.
1SB6	1.4	7280-5000	0	0	SH	S1	400	Diode Sect.
1T5	1.4	7250-3400	44	---	X2	S5	350	
2A4	2.5	7250-3000	#	93	SH	S6	650	Strikes at about 44
2A5	2.5	6140-2350	23	---	X2	S5	625	
2A6	2.5	6100-2050	11	---	X4	S5	175	Triode Sect. CAP = G
2A6	2.5	6100-4350	11	32	SH	S1	400	X Dual Diode
2A7	2.5	7100-2365	0	---	X2	S4	300	Pent. Sect. CAP = G
2A7	2.5	7150-4362	22	---	X1	S5	225	Osc. Sect.
2B4	2.5	5130-2040	#	93	SH	S6	650	Strikes at about 58
2B6	2.5	7140-2360	18	---	X2	S5	475	
2B22	6.3	7200-0080	0	30	SH	S3	650	Top Washer = P
2C4	2.5	7130-5040	#	93	SH	S6	650	Strikes at about 72
2C22	6.3	7200-0080	23	---	X4	S5	475	Far CAP = G Near CAP = P
2C26	6.3	7200-0080	13	---	X2	S5	550	Right CAP = P Left CAP = G
2C40	6.3	7200-0080	20	---	X4	S5	425	CAP = P. Ring = G
2E5	2.5	6150-4030	0	100	SH	S5	---	Eye Open
2E5	2.5	6150-4230	0	100	SH	S5	---	Eye Closed
2V3	2.5	7200-0000	0	78	SH	S6	650	CAP = P
2W3	2.5	8200-4000	0	0	SH	S3	400	
2Z2	2.5	4100-2000	0	0	SH	S3	400	
3A8	2.5	7200-3400	17	---	X2	S5	225	Pentode Sect. CAP = G
3A8	2.5	7250-6000	0	---	X1	S5	175	Triode Sect.
3A8	2.5	7200-8000	0	32	SH	S1	400	Diode Sect.
3B5	2.5	7250-3400	33	---	X2	S4	425	
3B7	2.5	1860-7000	27	---	X2	S5	475	Triode No. 1
3B7	2.5	8130-2000	27	---	X2	S5	475	Triode No. 2
3C6	2.5	1850-6000	10	---	X2	S4	350	Triode No. 1
3C6	2.5	8140-3000	10	---	X2	S4	350	Triode No. 2
5AX4	5.0	8200-6000	0	36	SH	S3	400	Plate No. 1
5AX4	5.0	8200-4000	0	27	SH	S3	400	Plate No. 2
5X3	5.0	4100-3000	0	34	SH	S3	400	Plate No. 1
5X3	5.0	4100-2000	0	20	SH	S3	400	Plate No. 2
6A4	6.3	5130-2400	28	---	X2	S5	625	
6AB5	6.3	6150-4030	0	100	SH	S5	---	Eye Open
6AB5	6.3	6150-4230	0	100	SH	S5	---	Eye Closed
6AB6	6.3	7250-3480	0	---	X2	S5	450	
6AC6	6.3	7250-3480	0	---	X2	S5	750	
6AD6	6.3	7240-3580	0	100	SH	S5	---	Eye 1 Open, Eye 2 Closed
6AD6	6.3	7230-4580	0	100	SH	S5	---	Eye 2 Open, Eye 1 Closed
6AE5	6.3	7250-3080	72	---	X2	S5	375	
6AE6	6.3	7250-4083	0	---	X2	S5	225	Triode No. 1
6AE6	6.3	7250-3084	0	---	X2	S5	250	Triode No. 2
6AE7	6.3	7260-3084	33	---	X2	S5	475	Triode No. 1
6AE7	6.3	7240-3056	33	---	X2	S5	475	Triode No. 2
6AF5	6.3	7250-3080	52	---	X2	S5	475	

MODEL 752A

Supplementary Tube Test Data for Obsolete Tube Types

TUBE TYPE	FIL.	SELECTORS	BIAS	SHUNT	MULT.	PRESS	MIN. MUT.COND.	NOTATIONS
6AH5	6.3	7260-4½80	17	---	X10	S5	300	
6AJ7	6.3	7240-8653	15	---	X10	S5	375	
6AK7	6.3	7240-8651	12	---	X10	S5	475	
6AW7	6.3	7820-6010	10	---	X4	S5	175	Triode Sect.
6AW7	6.3	7800-3451	0	76	SH	S1	400	X Dual Diode
6AX6	6.3	7200-5384	0	58	SH	S3	650	X Dual Diode
6B5	6.3	6140-2350	0	---	X2	S5	525	
6B6	6.3	7200-3080	11	---	X4	S5	175	Triode Sect. CAP
6B6	6.3	7200-5480	11	32	SH	S1	400	X Dual Diode
6B8	6.3	7200-3681	22	---	X2	S5	300	Pent. Sect. CAP
6B8	6.3	7200-5481	22	32	SH	S1	400	X Dual Diode
6C7	6.3	7100-2060	26	---	X2	S5	375	Triode Sect. CAP
6C7	6.3	7100-5460	26	30	SH	S1	400	X Dual Diode
6C8	6.3	7205-3648	15	---	X2	S5	500	X Dual Triode. CAP
6D5	6.3	7250-3080	57	---	X2	S5	625	
6D7	6.3	7100-2364	21	---	X2	S5	375	CAP = G
6D8	6.3	7200-3485	0	---	X2	S4	300	Pent. Sect. CAP
6D8	6.3	7250-6483	22	---	X1	S5	225	Osc. Sect.
6E6	6.3	7153-6240	51	---	X2	S5	425	X Dual Triode
6E7	6.3	7100-2364	17	---	X2	S5	500	CAP = G
6G5	6.3	6150-4030	0	100	SH	S5	---	Eye Open
6G5	6.3	6150-4230	0	100	SH	S5	---	Eye Closed
6H4	6.3	7200-4080	0	73	SH	S1	400	
6K5	6.3	7200-3080	15	---	X4	S5	225	CAP = G
6N5	6.3	6150-4030	0	100	SH	S5	---	Eye Open
6N5	6.3	6150-4230	0	100	SH	S5	---	Eye Closed
6N6	6.3	7250-3480	0	---	X2	S5	525	
6P7	6.3	2300-4586	18	---	X2	S5	350	Pent.Sect. CAP =
6P7	6.3	2370-6084	35	---	X2	S5	150	Triode Sect.
6Q6	6.3	7200-3080	13	---	X2	S5	300	Triode Sect. CAP
6Q6	6.3	7200-5480	13	30	SH	S1	400	X Dual Diode
6SZ7	6.3	7820-6031	15	---	X4	S5	175	Triode Sect.
6SZ7	6.3	7800-5431	0	30	SH	S1	400	X Dual Diode
6T5	6.3	6150-4030	0	100	SH	S5	---	Eye Open
6T5	6.3	6150-4230	0	100	SH	S5	---	Eye Closed
6T7	6.3	7200-3080	13	---	X2	S5	300	Triode Sect. CAP
6T7	6.3	7200-5480	13	30	SH	S1	400	X Dual Diode
6U7	6.3	7200-3485	17	---	X2	S5	500	CAP = G
6V7	6.3	7200-3080	42	---	X2	S5	300	Triode Sect. CAP
6V7	6.3	7200-5480	42	30	SH	S1	400	X Dual Diode
6W5	6.3	7200-5380	0	20	SH	S3	650	X Dual Diode
6W7	6.3	7200-3485	21	---	X2	S5	375	CAP = G
6Y5	6.3	6100-5340	0	58	SH	S3	650	X Dual Diode
6Y7	6.3	7254-6380	13	---	X2	S5	300	X Dual Triode
6Z7	6.3	7254-6380	14	---	X2	S5	375	X Dual Triode
7AB7	6.3	7250-3140	10	---	X4	S5	250	
7AJ7	6.3	8160-2374	8	---	X4	S5	350	
7B5	6.3	8160-2370	17	---	X4	S5	375	
7B6	6.3	8130-2070	11	---	X4	S5	175	Triode Sect.
7B6	6.3	8100-6572	0	30	SH	S1	400	X Dual Diode

MODEL 752A

Supplementary Tube Test Data for Obsolete Tube Types

TUBE TYPE	FIL.	SELECTORS	BIAS	SHUNT	MULT.	PRESS	MIN. MUT.COND.	NOTATIONS
7B8	6.3	8160-2574	0	---	X2	S4	300	Pent. Sect.
7B8	6.3	8140-3576	22	---	X1	S5	225	Osc. Sect.
7C4	6.3	8100-4070	0	70	SH	S1	400	
7G8	6.3	8150-7362	11	---	X4	S5	325	Tetrode No. 1
7G8	6.3	8140-2367	11	---	X4	S5	325	Tetrode No. 2
7S7	6.3	8160-2574	16	---	X2	S5	475	Heptode Sect.
7S7	6.3	8140-3075	14	---	X2	S5	525	Triode Sect.
7T7	6.3	8160-2374	10	---	X4	S5	475	
10	7.5	4130-2000	44	---	X2	S5	375	
10Y	7.5	4130-2000	44	---	X2	S5	375	
12A	5.0	4130-2000	48	---	X2	S5	525	
12A5	12.6	7140-2350	38	---	X2	S5	550	
12A6	12.6	7250-3481	18	---	X4	S5	475	
12B8	12.6	7200-3410	18	---	X4	S5	275	Pent. Sect. CAP = G
12B8	12.6	7280-5060	7	---	X4	S5	300	Triode Sect.
12F5	12.6	7200-4080	12	---	X4	S5	225	CAP = G
12SW7	12.6	7820-6031	21	---	X2	S5	600	Triode Sect.
12SW7	12.6	7800-5436	0	30	SH	S1	400	X Dual Diode
12SX7	12.6	7841-5263	23	---	X4	S5	400	X Dual Triode
12SY7	12.6	7280-3465	10	---	X4	---	150	Ampl. Sect. Hold down S1 and Press S5
12SY7	12.6	7250-4068	22	---	X4	S5	625	Osc. Sect.
2Z3	12.6	4100-2030	0	35	SH	S3	650	
2Z5	6.3	6100-5040	0	30	SH	S3	650	Plate No. 1
2Z5	6.3	2100-3040	0	30	SH	S3	650	Plate No. 2
4A4	12.6	8160-2070	23	---	X4	S5	400	
4A5	12.6	8160-2370	18	---	X4	S5	475	
4E7	12.6	8160-2570	20	---	X4	S5	200	Pent. Sect.
4E7	12.6	8100-4372	0	30	SH	S1	400	X Dual Diode
4Z3	12.6	4100-2030	0	35	SH	S3	650	
5	2.0	5100-2340	0	---	X2	---	225	CAP = G. Hold down S1 and Press S5
9	2.0	6143-5200	23	---	X2	S5	300	X Dual Triode
K20A	7.5	5130-0240	0	---	X2	S5	625	CAP = P
2	3.0	4100-2300	0	---	X1	S5	300	CAP = G
4A	2.5	5100-2340	25	---	X2	S5	300	CAP = G
T25A	7.5	4130-2000	44	---	X2	S5	375	
5A7	25.0	7250-3486	32	---	X2	S5	550	Pent. Sect.
5A7	25.0	7200-6013	0	40	SH	S3	650	Rect. Sect.
5AC5	25.0	7250-3080	0	---	X2	S5	475	
5B5	25.0	6140-2350	0	---	X2	S5	625	
5B6	25.0	7250-3480	20	---	X10	S4	300	
5B8	25.0	7200-3410	18	---	X4	S5	275	Pent. Sect. CAP = G
5B8	25.0	7280-5060	7	---	X4	S5	300	Triode Sect.
5D8	25.0	7200-3410	18	---	X4	S5	300	Pent. Sect. CAP = G
5D8	25.0	7250-6010	12	---	X4	S5	175	Triode Sect.
5D8	25.0	7200-8010	12	53	SH	S1	400	Diode Sect.

MODEL 752A

Supplementary Tube Test Data for Obsolete Tube Types

TUBE TYPE	FIL.	SELECTORS	BIAS	SHUNT	MULT.	PRESS	MIN. MUT. COND.		NOTATIONS
25N6	25.0	7250-3480	0	---	X2	S5	625		
25T	6.3	4130-0000	0	---	X2	S5	275		CAP = P
25Y5	25.0	6100-5243	0	30	SH	S3	650	X	Dual Diode
25Z3	25.0	6100-5243	0	30	SH	S3	650	X	Dual Diode
25Z4	25.0	7200-5080	0	50	SH	S3	650		
25Z5	25.0	6100-5243	0	30	SH	S3	650	X	Dual Diode
26	1.4	4130-2000	39	---	X2	S5	350		
27	2.5	5130-2040	41	---	X2	S5	300		
30	2.0	4130-2000	43	---	X2	S5	275		
31	2.0	4130-2000	41	---	X2	S5	275		
32L7	35.0	7250-3480	16	---	X10	S4	300		Pent. Sect.
32L7	35.0	7200-6013	0	45	SH	S3	650		Rect. Sect.
33	2.0	5130-2400	27	---	X2	S5	400		
RK33	6.3	7104-3526	35	---	X2	S5	425	X	Dual Triode. CAP = G
34	2.0	4100-2300	16	---	X2	---	175		CAP = G. Hold down S1 and Press S5
35	2.5	5100-2340	20	---	X2	S5	300		CAP = G
35A5	35.0	8160-2370	0	---	X10	S4	300		
35Z4	35.0	7200-5080	0	50	SH	S3	650		
35Z6	35.0	7200-5384	0	50	SH	S3	650	X	Dual Diode
36	6.3	5100-2340	31	---	X2	S5	325		CAP = G
37	6.3	5130-2040	42	---	X2	S5	275		
38	6.3	5100-2340	35	---	X2	S5	325		CAP = G
39/44	6.3	5100-2340	25	---	X2	S5	300		CAP = G
40	5.0	4130-2000	20	---	X1	S5	125		
40Z5	50.0	7200-5080	0	53	SH	S3	650		
41	6.3	6140-2350	17	---	X4	S5	375		
42	6.3	6140-2350	23	---	X2	S5	625		
43	25.0	6140-2350	18	---	X4	S5	350		
45Z3	50.0	7100-2040	0	44	SH	S3	650		
45Z5	50.0	7200-5080	0	53	SH	S3	650		
46	2.5	5130-2400	0	---	X2	S5	625		
47	2.5	5130-2400	0	---	X2	S5	625		
48	25.0	6140-2350	45	---	X2	S5	625		
49	2.0	5130-2400	49	---	X2	S5	350		
50	7.5	4130-2000	60	---	X2	S5	475		
50Y6	50.0	7200-5384	0	45	SH	S3	650	X	Dual Diode
50Z7	50.0	7200-5384	0	45	SH	S3	650	X	Dual Diode
51/51S	2.5	5100-2340	20	---	X2	S5	325		CAP = G
HD51	OFF	0000-5020	---	---	VR	S9	150 V.		155V. Regulation = 2 from 5 to 30 MA.
57A	6.3	6100-2354	21	---	X2	S5	375		CAP = G
58A/58AS	6.3	6100-2354	17	---	X2	S5	500		CAP = G
VT67	2.0	4130-2000	43	---	X2	S5	275		
HY65	6.3	7250-0408	0	---	X4	S5	425		CAP = P
HY69	6.3	5130-0240	0	---	X4	S5	475		CAP = P
70A7	75.0	7250-3480	80	---	X4	S5	475		Pent. Sect.
70A7	75.0	7200-1000	0	58	SH	---	650		Rect. Sect. Reverse M Hold down S7 and Pres.

MODEL 752 A

Supplementary Tube Test Data for Obsolete Tube Types

TUBE TYPE	FIL.	SELECTORS	BIAS	SHUNT	MULT.	PRESS	MIN. MUT.COND.	NOTATIONS
71A	5.0	4130-2000	69	---	X2	S5	525	
79	6.3	6103-5240	13	---	X2	S5	300	X Dual Triode, CAP = G
81	7.5	4100-2000	0	0	SH	S3	400	
82	2.5	4100-3200	0	55	SH	S3	650	X Dual Diode
85	6.3	6100-2050	42	---	X2	S5	300	Triode Sect. CAP = G
85	6.3	6100-4352	42	30	SH	S1	400	X Dual Diode
85AS	6.3	6100-2050	26	---	X2	S5	375	Triode Sect. CAP = G
85AS	6.3	6100-4352	26	30	SH	S1	400	X Dual Diode
99	3.0	4130-2000	20	---	X1	S5	250	
112A	5.0	4130-2000	48	---	X2	S5	525	
CK113	50.0	7250-3486	32	---	X2	S5	550	Pent. Sect.
CK113	50.0	7200-6013	0	40	SH	S3	650	Rect. Sect.
HY114	1.4	7200-0000	22	---	X2	S5	350	Right CAP = P. Left CAP = G
117Z4	117.0	7200-5080	0	50	SH	S3	650	
183	5.0	4130-2000	79	---	X2	S5	475	
244A	2.0	5130-2040	42	---	X2	S5	150	
257A	3.0	4100-2000	16	---	X1	S5	300	CAP = G
259A	2.0	5100-2340	19	---	X2	S5	250	CAP = G
264C	1.4	4130-2000	20	---	X1	S5	300	
271A	5.0	5130-2040	32	---	X4	S5	400	
283A	2.0	5100-2340	28	---	X2	S5	300	CAP = G
285A	2.0	5100-2340	31	---	X2	S5	300	CAP = G
310A	10.0	6100-2354	20	---	X2	S5	475	CAP = G
311A	10.0	5100-2340	31	---	X2	S5	700	CAP = G
482A	5.0	4130-2000	79	---	X2	S5	475	
482B	5.0	4130-2000	58	---	X2	S5	475	
483	5.0	4130-2000	79	---	X2	S5	475	
485	3.0	5130-2040	37	---	X2	S5	400	
CK505AX	0.6	3540-1200	17	---	X1	S5	100	
CK510AX	0.6	4710-2306	0	0	SH	S6	50	Sect. No. 1
CK510AX	0.6	4760-5301	0	0	SH	S6	50	Sect. No. 2
CK556AX	1.1	4230-1000	26	---	X2	S5	500	
CK568AX	1.1	4230-1000	38	---	X2	S5	200	
CK569AX	1.1	3540-1200	8	---	X1	S5	525	
CK571AX	1.1	3470-1200	57	---	X1	S5	100	
CK573AX	1.1	2430-1000	34	---	X2	S5	625	
CK574AX	0.6	3540-1200	15	---	X1	S5	100	
CK605CX	6.3	3470-1265	10	---	X4	S5	675	
CK606BX	6.3	2300-1040	0	80	SH	S1	400	
CK608CX	6.3	3450-1060	22	---	X10	S5	300	
CK619CX	6.3	2340-1050	7	---	X10	S5	250	
717A	6.3	7240-8631	8	---	X4	S5	475	
814	10.0	5130-0240	0	---	X2	S5	750	CAP = P. Fuse lamp will glow brightly
SD828A	6.3	4630-1520	22	---	X4	S5	300	
SD828E	6.3	4630-0512	12	---	X10	S5	325	TOP LEAD = P
834	7.5	4100-0000	0	---	X2	S5	525	Near CAP = G Far CAP = P

MODEL 752 A

Supplementary Tube Test Data for Obsolete Tube Types

TUBE TYPE	FIL.	SELECTORS	BIAS	SHUNT	MULT.	PRESS	MIN. MUT.COND.	NOTATIONS
SD917A	6.3	3420-1050	10	---	X4	S4	425	
SN944	6.3	4630-0512	12	---	X4	S5	375	Top Lead = P
SN946B	6.3	2300-1040	0	80	SH	S1	400	
SN947D	6.3	3610-5780	44	---	X10	S5	300	
SN949C	6.3	3670-1052	#	50	SH	S3	650	Strikes at about 78
SN953D	6.3	3610-5720	15	---	X10	S5	350	
SN954	6.3	4200-1030	0	0	SH	S3	650	
SN954B	6.3	3600-2050	0	0	SH	S3	650	
SN956B	1.1	1200-0000	0	---	X1	S3	400	Top Lead = P. Connec Fil. leads to Pins 1
SN957A	6.3	5340-1020	25	---	X4	S5	425	
SN972D	6.3	3610-5740	13	---	X4	S5	475	
SN973B	6.3	3610-5740	16	---	X4	S5	475	
SN976C	6.3	3610-5780	44	---	X10	S5	300	
SD993C	6.3	3610-8050	19	---	X10	S5	300	
SD995B	6.3	3610-5740	13	---	X4	S5	475	
FM1000	6.3	8120-4536	0	---	X2	S5	225	Grid No. 1
FM1000	6.3	8160-4532	0	---	X2	S5	275	Grid No. 2
1005	6.3	6800-3050	0	93	SH	S6	650	Plate No. 1
1005	6.3	6800-5030	0	93	SH	S6	650	Plate No. 2
SN1006	6.3	5340-1200	9	---	X4	S4	225	
CK1027	OFF	0000-4070	0	91	SH	S6	650	CAP = P
E1148	6.3	7200-0080	12	---	X4	S5	350	Upper CAP = P Lower CAP = G
1247	0.6	4500-0000	0	0	SH	S1	400	Top Lead = P
HY1269	12.6	5130-0240	0	---	X10	S5	275	CAP = P. Short on 1-
1291	2.5	1860-7000	27	---	X2	S5	475	Triode No. 1
1291	2.5	8130-2000	27	---	X2	S5	475	Triode No. 2
1602	7.5	4130-2000	44	---	X2	S5	375	
1616	4.3	4100-0000	0	30	SH	S2	650	CAP = P
1625	12.6	7140-0360	28	---	X4	S5	600	CAP = P
1626	12.6	7250-3080	46	---	X2	S5	650	
1629	12.6	7250-4080	0	100	SH	S5	---	Eye Open
1629	12.6	7250-4380	0	100	SH	S5	---	Eye Closed
1641	5.0	4100-0000	0	28	SH	S3	650	Left CAP = P
1641	5.0	1400-0000	0	28	SH	S3	650	Right CAP = P
1650	6.3	6140-3070	24	---	X2	S5	600	
1654	1.4	1700-0000	0	67	SH	S6	650	CAP = P
5517	OFF	0000-4070	0	40	SH	S2	650	CAP = P
5591	6.3	4310-5620	10	---	X4	S5	675	
5603	6.3	2740-8623	42	---	X4	S5	625	
5608A	2.5	7153-6240	17	---	X2	S5	475	I Dual Triode
5823	OFF	0000-1030	0	91	SH	S6	650	Place a 1 megohm ½ wat resistor across pins 1 and 4 in Lootal socket
5901	6.3	3610-5740	16	---	X4	S5	475	
7193	6.3	7200-0080	23	---	X4	S5	475	Far Cap = G Near Cap = P

MODEL 752A

Supplementary Tube Test Data for Obsolete Tube Types

TUBE TYPE	FIL.	SELECTORS	BIAS	SHUNT	MULT.	PRESS	MIN. MUT.COND.	NOTATIONS
8005	10.0	4130-0000	0	---	X4	S5	400	CAP = P
38142	7.5	4130-2000	37	---	X2	S5	625	
XXB	2.5	1850-6000	10	---	X2	S4	350	Triode No. 1
XXB	2.5	8140-3000	10	---	X2	S4	350	Triode No. 2
XXD	12.6	8154-6372	27	---	X4	S5	325	X Dual Triode
XXFM	6.3	8130-2040	11	---	X4	S5	150	Triode Sect.
XXFM	6.3	8100-5647	0	77	SH	S1	400	X Dual Diode
XXL	6.3	8160-2070	23	---	X4	S5	400	

OPERATING DATA

FOR THE

MODEL CA-4 ADAPTER

WHEN USED WITH

MODEL 752

ROLL CHART TUBE TESTER

HICKOK

‡DUAL TEST. For dual triodes make normal Leakage test first then repeat Leakage test for 2nd section with S8 pressed. Proceed with 1st section GM test. On all dual tubes, for 2nd section test press S8 with button listed in the press column.

+Verify shorts by setting filament switch to OFF position.

★Approximate starting voltage for voltage regulator tubes.

†Read 0–100 milliamperes with S9 pressed.

VR. For voltage regulator tubes the figure in the MINIMUM MUT. COND. column indicates the nominal operating voltage.

#Set BIAS to 100, press proper button, then rotate BIAS dial counterclockwise until tube strikes.

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INSTRUCTIONS FOR USING THE MODEL CA-4 COMPACTRON ADAPTER

WITH A ROLL-CHART TUBE TESTER

The Hickok Model CA-4 Compactron Adapter is used in conjunction with Hickok CARDMATIC and Roll-Chart tube testers to test Compactrons, Novars, 5 and 7-pin Nuvistors, and 10-pin header tubes.

The CA-4 Adapter consists of:

a) Eight (8) rotary switches which are used to select the pins of each individual element of the tube to be tested.

b) Five (5) tube sockets.

c) Three (3) jacks labeled "G", "P", and "K" which are used for connection to the tube top cap.

d) A test plug which is connected to the CA-4 by a cable. This test plug is inserted into the octal socket of the tube tester that is to be used with the CA-4. The following table lists the pin numbers of the test plug and the associated tube element switch.

OCTAL PLUG PIN NUMBER	TUBE ELEMENT SWITCH
1	FILAMENT
2	FILAMENT
3	GRID A
4	GRID B
5	PLATE
6	SCREEN
7	CATHODE
8	SUPPRESSOR

The tube element switch settings on the adapter are connected in parallel with the pins of each tube socket mounted on the CA-4. The following table lists the switch and the associated pin number of the tube sockets.

SWITCH SETTINGS	PIN NUMBERS
1	1
2	2
3	3
4	4
5	5
6	6
7	7
8	8
9	9
A	10
B	11
C	12
D	No Connection
0	No Connection

The three jacks marked "G", "P", and "K" located on the left side of the adapter are internally connected to their respective element switch (grid, plate, and cathode). They are used for cap connections (test lead supplied). The proper top cap connection is indicated in the NOTATIONS column of the chart on the following pages.

CAUTION

When using the CA-4 with a Roll-Chart tube tester set the ele-

MODEL 752 TUBE TESTER

Supplementary Data - CA-4 Adapter

NOTE: When using CA-4 Adapter, set Tester Selectors to 1234-5678

TUBE TYPE	FIL	ADAPTER SELECTORS	BIAS	SHUNT	MULT.	PRESS	MIN. MUT.COND.	NOTATIONS
1AD2	1.4	1C00-0000	0	53	SH	S6	400	CAP = P on Adapter
2AH2	2.5	1C00-0000	0	79	SH	S6	400	CAP = P on Adapter
2AS2	2.5	1C00-0000	0	81	SH	S6	400	CAP = P on Adapter
2CW4	2.0	AC40-2080	10	---	X10	S4	575	
2DS4	2.0	AC40-2080	9	---	X10	S4	600	
2DV4	2.0	AC60-1070	13	---	X10	S4	700	
3AT2	3.0	1C00-0000	0	86	SH	S6	400	CAP = P on Adapter
3AW2	3.0	2C00-0000	0	87	SH	S6	400	CAP = P on Adapter
4HA7	4.3	1C90-A040	22	---	X4	S5	475	Triode No. 1
4HA7	4.3	1CB0-2030	14	---	X4	S5	200	Triode No. 2
4HC7	4.3	1C90-A040	14	---	X10	S5	300	Triode No. 1
4HC7	4.3	1CB0-2030	12	---	X1	S5	550	Triode No. 2
5BC3	5.0	1300-9000	0	40	SH	S3	650	Plate No. 1
5BC3	5.0	1300-5000	0	35	SH	S3	650	Plate No. 2
5HA7	5.0	1C90-A040	22	---	X4	S5	475	Triode No. 1
5HA7	5.0	1CB0-2030	14	---	X4	S5	200	Triode No. 2
5HC7	5.0	1C90-A040	14	---	X10	S5	300	Triode No. 1
5HC7	5.0	1CB0-2030	12	---	X1	S5	550	Triode No. 2
6AC9	6.3	1C90-BA87	11	---	X10	S5	450	Pentode Sect.
6AC9	6.3	1C00-3040	0	87	SH	S1	400	Diode No. 1
6AC9	6.3	1C00-2030	0	87	SH	S1	400	Diode No. 2
6AC10	6.3	1C90-A040	11	---	X10	S5	450	Triode No. 1
6AC10	6.3	1C7B-5263	11	---	X10	S5	450	⧗ Triodes No. 2 and No. 3
6AD10	6.3	1C30-7625	17	---	X2	S5	550	Pentode No. 1
6AD10	6.3	1C80-BA90	10	---	X10	S5	450	Pentode No. 2
6AF11	6.3	1CB0-2A90	12	---	X10	S5	450	Pentode Sect.
6AF11	6.3	1C60-8050	14	---	X4	S5	700	Triode No. 1
6AF11	6.3	1C30-4070	11	---	X4	S5	500	Triode No. 2
6AG11	6.3	1C85-7649	12	---	X10	S5	525	⧗ Dual Triode
6AG11	6.3	1C00-A3B2	0	80	SH	S1	400	⧗ Dual Diode
6AL11	6.3	1C80-BA90	19	---	X10	S5	400	Pentode No. 1
6AL11	6.3	1C30-6724	22	---	X2	S5	300	Pentode No. 2
6AR11	6.3	1CA0-89B7	5	---	X10	S5	550	Pentode No. 1
6AR11	6.3	1C50-2364	5	---	X10	S5	550	Pentode No. 2
6AS11	6.3	1CB0-2A90	15	---	X10	S5	325	Pentode Sect.
6AS11	6.3	1C60-8050	11	---	X10	S5	500	Triode No. 1
6AS11	6.3	1C30-4070	16	---	X4	S5	600	Triode No. 2
6AV11	6.3	1C97-A546	23	---	X2	S5	750	⧗ Triodes No. 1 and 2
6AV11	6.3	1CB0-2030	23	---	X2	S5	750	Triode No. 3
6AY3	6.3	4500-2090	0	52	SH	S3	650	
6AY11	6.3	1C85-7694	13	---	X1	S5	650	⧗ Dual Triode
6AY11	6.3	1C00-A3B2	0	78	SH	S1	400	⧗ Dual Diode
6B10	6.3	1C53-6472	23	---	X4	S5	475	⧗ Dual Triode
6B10	6.3	1C00-A890	0	73	SH	S1	400	⧗ Dual Diode
6BA3	6.3	4500-2090	0	57	SH	S3	650	
6BA11	6.3	1C40-6387	10	---	X1	S5	325	Pentode No. 1
6BA11	6.3	1C40-2385	10	---	X1	S5	325	Pentode No. 2
6BA11	6.3	1C90-B0A0	30	---	X2	S5	550	Triode Sect.
6BD11	6.3	1CB0-2A90	15	---	X10	S5	450	Pentode Sect.
6BD11	6.3	1C60-8050	14	---	X4	S5	800	Triode No. 1
6BD11	6.3	1C30-4070	14	---	X4	S5	700	Triode No. 2
6BE3	6.3	1C00-A070	0	58	SH	S3	650	

NOTE: When using CA-4 Adapter, set Tester Selectors to 1234-5678

TUBE TYPE	FIL	ADAPTER SELECTORS	BIAS	SHUNT	MULT.	PRESS	MUT.COND.	NOTATIONS
6BF11	6.3	1C80-BA90	30	---	X10	S5	375	Pentode No. 1
6BF11	6.3	1C30-7625	17	---	X2	S5	200	Pentode No. 2
6BH3	6.3	4500-2090	0	52	SH	S3	650	
6BH11	6.3	1C80-A9B0	10	---	X10	S5	350	Pentode Sect.
6BH11	6.3	1C64-7352	15	---	X10	S5	550	⧗ Dual Triode
6BJ3	6.3	1C00-A070	0	60	SH	S3	650	
6BK11	6.3	1C90-A040	21	---	X2	S5	250	Triode No. 1
6BK11	6.3	1C7B-5263	20	---	X2	S5	200	⧗ Dual Triode
6BN11	6.3	1C70-B98A	10	---	X10	S5	475	Pentode No. 1
6BN11	6.3	1C30-5426	10	---	X10	S5	475	Pentode No. 2
6BS3	6.3	4500-2090	0	60	SH	S3	400	
6C9	6.3	4570-9860	16	---	X4	S5	700	Tetrode No. 1
6C9	6.3	4510-32A0	16	---	X4	S5	700	Tetrode No. 2
6C10	6.3	1C97-A546	14	---	X4	S5	200	⧗ Triodes No. 1 and 2
6C10	6.3	1CB0-2030	14	---	X4	S5	200	Triode No. 3
6CD3	6.3	1C00-A070	0	63	SH	S3	650	
6CE3	6.3	1C00-4070	0	65	SH	S3	650	
6CG3	6.3	1C00-4070	0	78	SH	S3	400	
6CJ3	6.3	4500-2090	0	78	SH	S3	400	
6CW4	6.3	AC40-2080	10	---	X10	S4	575	
6D10	6.3	1C97-A546	15	---	X4	S5	300	⧗ Triodes No. 1 and 2
6D10	6.3	1CB0-2030	15	---	X4	S5	500	Triode No. 3
6DS4	6.3	AC40-2080	9	---	X10	S4	600	
6DV4	6.3	AC60-1070	13	---	X10	S4	700	
6DW4	6.3	4500-2090	0	55	SH	S3	650	
6FJ7	6.3	1CA0-B090	20	---	X2	S5	775	Triode No. 1
6FJ7	6.3	1C30-5070	18	---	X10	S5	575	Triode No. 2
6FM7	6.3	1CA0-B090	20	---	X2	S5	300	Triode No. 1
6FM7	6.3	1C80-5070	61	---	X4	S5	725	Triode No. 2
6FY7	6.3	1CA0-B090	21	---	X2	S5	225	Triode No. 1
6FY7	6.3	1C30-5070	59	---	X10	S5	475	Triode No. 2
6G11	6.3	1C80-BA90	39	---	X4	S5	650	Pentode No. 1
6G11	6.3	1C30-6724	20	---	X2	S5	150	Pentode No. 2
6GA7	6.3	1C40-7350	49	---	X4	S5	700	Pentode Sect.
6GA7	6.3	1C00-B080	0	43	SH	S3	400	Diode Sect.
6GE5	6.3	1CB0-72A0	50	---	X10	S5	300	
6GF5	6.3	1CB0-72A0	59	---	X4	S5	625	
6GF7	6.3	4590-8010	20	---	X2	S5	250	Triode No. 1
6GF7	6.3	4520-6030	64	---	X10	S5	450	Triode No. 2
6GJ5	6.3	4560-0730	31	---	X10	---	450	CAP = P on Adapter Hold down S1 and Press S5
6GT5	6.3	4560-9730	31	---	X10	---	450	Hold down S1 and Press S5
6GV5	6.3	1C90-0BA0	47	---	X10	S5	350	CAP = P on Adapter
6GY5	6.3	1C50-07A0	32	---	X10	---	675	CAP = P on Adapter Hold down S1 and Press S5
6HB5	6.3	1CB0-72A0	59	---	X4	S5	625	
6HD5	6.3	1CB0-79A0	52	---	X10	S5	400	
6HE5	6.3	1C90-6AB0	29	---	X4	S5	750	
6HE7	6.3	1C90-5B80	58	---	X10	S5	200	Pentode Sect.
6HE7	6.3	1C00-2040	0	85	SH	S1	500	Diode Sect.
6HF5	6.3	1C90-0BA0	70	---	X4	S5	500	CAP = P on Adapter
6HJ5	6.3	1CB0-792A	53	---	X10	S5	350	
6J9	6.3	4579-86A0	15	---	X4	S5	750	⧗ Triodes No. 1 and 2
6J9	6.3	4520-1030	15	---	X4	S5	750	Triode No. 3

NOTE: When using CA-4 Adapter, set Tester Selectors to 1234-5678

TUBE TYPE	FIL	ADAPTER SELECTORS	BIAS	SHUNT	MULT.	PRESS	MIN. MUT.COND.	NOTATIONS
6J10	6.3	1C70-4685	0	---	X1	S5	500	Pentode No. 1
6J10	6.3	1CB0-9230	20	---	X10	S5	375	Pentode No. 2
6J11	6.3	1CB0-978A	12	---	X4	S5	800	Pentode No. 1
6J11	6.3	1C50-3264	12	---	X4	S5	800	Pentode No. 2
6JB6	6.3	4520-0138	31	---	X10	---	450	CAP = P on Adapter Hold down S1 and Press S5
6JE6	6.3	4520-0738	42	---	X10	---	575	CAP = P on Adapter Hold down S1 and Press S5
6JF6	6.3	4520-0738	36	---	X10	---	550	CAP = P on Adapter Hold down S1 and Press S5
6JG6	6.3	4520-9736	36	---	X10	---	550	Hold down S1 and Press S5
6JM6	6.3	1C50-032A	48	---	X10	S5	350	CAP = P on Adapter
6JN6	6.3	1CB0-7324	48	---	X10	S5	350	
6JS6A	6.3	1C50-0324	68	---	X4	S5	600	CAP = P on Adapter
6JT6	6.3	4520-9736	47	---	X10	S5	275	
6JZ8	6.3	1C70-4890	34	---	X10	S5	300	Pentode Sect.
6JZ8	6.3	1CA0-20B0	32	---	X2	S5	450	Triode Sect.
6K11	6.3	1C90-A048	25	---	X2	S5	675	Triode No. 1
6K11	6.3	1C7B-5263	14	---	X4	S5	200	⧗ Triode No. 2 and 3
6KD6	6.3	1C50-0324	75	---	X4	S5	375	CAP = P on Adapter
6KM6	6.3	4520-0738	72	---	X4	S5	350	CAP = P on Adapter
6KN6	6.3	1C50-0324	68	---	X4	S5	500	CAP = P on Adapter
6KY8	6.3	4520-6730	39	---	X10	S5	300	Pentode Sect.
6KY8	6.3	4590-8010	16	---	X2	S5	350	Triode Sect.
6LR8	6.3	4520-6730	40	---	X10	S5	350	Pentode Sect.
6LR8	6.3	4590-8010	21	---	X4	S5	350	Triode Sect.
6LU8	6.3	1C60-4890	40	---	X10	S5	350	Pentode Sect.
6LU8	6.3	1CA0-20B0	21	---	X4	S5	350	Triode Sect.
6M11	6.3	1C20-B3A0	10	---	X10	S5	550	Pentode Sect.
6M11	6.3	1C85-7694	16	---	X10	S5	375	⧗ Dual Triode
6MD8	6.3	4560-3070	27	---	X4	S5	575	Triode No. 1
6MD8	6.3	4589-2170	27	---	X4	S5	575	⧗ Triode No. 2 and No. 3
6Q11	6.3	1C90-A048	25	---	X2	S5	675	Triode No. 1
6Q11	6.3	1C7B-5263	14	---	X4	S5	200	⧗ Triode No. 2 and No. 3
6T9	6.3	1C80-BA90	12	---	X10	S5	450	Pentode Sect.
6T9	6.3	1C40-2050	16	---	X4	S5	200	Triode Sect.
6T10	6.3	1C80-BA90	20	---	X10	S5	375	Pentode No. 1
6T10	6.3	1C30-7625	15	---	X2	S5	200	Pentode No. 2
6U10	6.3	1C9B-A243	27	---	X2	S5	625	⧗ Triodes No. 1 and 3
6U10	6.3	1C70-5060	20	---	X2	S5	175	Triode No. 2
6Y10	6.3	1C80-BA90	21	---	X4	S5	750	Pentode No. 1
6Y10	6.3	1C30-7625	13	---	X2	S5	575	Pentode No. 2
6Z10	6.3	1C70-4685	0	---	X1	S5	500	Pentode No. 1
6Z10	6.3	1CB0-9230	20	---	X10	S5	375	Pentode No. 2
8AC9	7.5	1C90-BA87	11	---	X10	S5	450	Pentode Sect.
8AC9	7.5	1C00-3040	0	87	SH	S1	400	Diode No. 1
8AC9	7.5	1C00-2030	0	87	SH	S1	400	Diode No. 2
8AR11	7.5	1CA0-89B7	5	---	X10	S5	550	Pentode No. 1
8AR11	7.5	1C50-2364	5	---	X10	S5	550	Pentode No. 2
8B10	7.5	1C53-6472	24	---	X2	S5	600	⧗ Dual Triode) Set "Line Adjust"
8B10	7.5	1C00-A890	0	70	SH	S1	400	⧗ Dual Diode) to 625 on 1500) scale.
8BA11	7.5	1C40-6387	10	---	X1	S5	325	Pentode No. 1
8BA11	7.5	1C40-2385	10	---	X1	S5	325	Pentode No. 2
8BA11	7.5	1C90-B0A0	30	---	X2	S5	550	Triode Sect.

NOTE: When using CA-4 Adapter, set Tester Selectors to 1234-5678

TUBE TYPE	FIL.	ADAPTER SELECTORS	BIAS	SHUNT	MULT.	PRESS	MIN. MUT. COND.	NOTATIONS
8BM11	7.5	1CB0-79A8	10	---	X10	S5	400	Pentode No. 1
8BM11	7.5	1C60-2354	12	---	X10	S5	350	Pentode No. 2
8BQ11	7.5	1CA0-89B7	8	---	X10	S5	500	Pentode No. 1
8BQ11	7.5	1C50-2364	8	---	X10	S5	630	Pentode No. 2
8BU11	7.5	1C80-A9B0	10	---	X4	S5	700	Pentode Sect.
8BU11	7.5	1C64-7352	16	---	X10	S5	450	Dual Triode
9BJ11	10.0	1CB0-79A8	10	---	X2	S5	500	Pentode No. 1
9BJ11	10.0	1C60-2354	11	---	X10	S5	450	Pentode No. 2
10AL11	10.0	1C80-BA90	19	---	X10	S5	400	Pentode No. 1
10AL11	10.0	1C30-6724	22	---	X2	S5	300	Pentode No. 2
10GF7	10.0	4590-8010	20	---	X2	S5	250	Triode No. 1
10GF7	10.0	4520-6030	64	---	X10	S5	450	Triode No. 2
10J10	10.0	1C70-4685	0	---	X1	S5	500	Pentode No. 1
10J10	10.0	1CB0-9230	20	---	X10	S5	375	Pentode No. 2
11AR11	12.6	1CA0-89B7	5	---	X10	S5	525	Pent. No. 1) Set "Line Adjust"
11AR11	12.6	1C50-2364	5	---	X10	S5	525	Pent. No. 2) to 675 on 1500) scale.
11BQ11	12.6	1CA0-89B7	10	---	X10	S5	350	Pentode No. 1.) Set "Line Ad-
11BQ11	12.6	1C50-2364	10	---	X10	S5	375	Pentode No. 2.) just to 86 on) 200 scale.
11BT11	10.0	1CB0-2A86	10	---	X20	S5	475	Pentode Sect.
11BT11	10.0	1C50-7060	12	---	X4	S5	850	Triode No. 1
11BT11	10.0	1C30-9040	20	---	X4	S5	750	Triode No. 2
11FY7	10.0	1CA0-B090	21	---	X2	S5	225	Triode No. 1
11FY7	10.0	1C30-5070	59	---	X10	S5	475	Triode No. 2
12AE10	12.6	1C80-BA90	25	---	X4	S5	425	Pentode No. 1
12AE10	12.6	1C30-7625	23	---	X2	S5	250	Pentode No. 2
12AL11	12.6	1C80-BA90	19	---	X10	S5	400	Pentode No. 1
12AL11	12.6	1C30-6724	22	---	X2	S5	300	Pentode No. 2
12AX3	12.6	1C00-4070	0	40	SH	S3	650	
12AY3	12.6	4500-2090	0	52	SH	S3	650	
12BE3	12.6	1C00-A070	0	58	SH	S3	650	
12BF11	12.6	1C80-BA90	30	---	X10	S5	375	Pentode No. 1
12BF11	12.6	1C30-7625	17	---	X2	S5	200	Pentode No. 2
12BS3	12.6	4500-2090	0	60	SH	S3	400	
12BT3	12.6	1C00-4070	0	60	SH	S3	650	
12G11	12.6	1C80-BA90	39	---	X4	S5	650	Pentode No. 1
12G11	12.6	1C30-6724	20	---	X2	S5	150	Pentode No. 2
12GE5	12.6	1CB0-72A0	50	---	X10	S5	300	
12GJ5	12.6	4560-0730	31	---	X10	---	450	CAP = P on Adapter Hold down S1 and Press S5
12GT5	12.6	4560-9730	31	---	X10	---	450	Hold down S1 and Press S5
12GV5	12.6	1C90-0BA0	47	---	X10	S5	350	CAP = P on Adapter
12HE7	12.6	1C90-5B80	58	---	X10	S5	200	Pentode Sect.
12HE7	12.6	1C00-2040	0	85	SH	S1	500	Diode Sect.
12JB6	12.6	4520-0138	31	---	X10	---	450	CAP = P on Adapter Hold down S1 and Press S5
12JN6	12.6	1CB0-7324	48	---	X10	S5	350	
12JT6	12.6	4520-9736	47	---	X10	S5	275	
12T10	12.6	1C80-BA90	20	---	X10	S5	375	Pentode No. 1
12T10	12.6	1C30-7625	15	---	X2	S5	200	Pentode No. 2
13CW4	12.6	AC40-2080	10	---	X10	S4	575	
13FM7	12.6	1CA0-B090	20	---	X2	S5	300	Triode No. 1
13FM7	12.6	1C80-5070	61	---	X4	S5	725	Triode No. 2
13GF7	12.6	4590-8010	20	---	X2	S5	250	Triode No. 1
13GF7	12.6	4520-6030	64	---	X10	S5	450	Triode No. 2

NOTE: When using CA-4 Adapter, set Tester Selectors to 1234-5678

TUBE TYPE	FIL.	ADAPTER SELECTORS	BIAS	SHUNT	MULT.	PRESS	MIN. MUT. COND.	NOTATIONS
13J10	12.6	1C70-4685	0	---	X1	S5	500	Pentode No. 1
13J10	12.6	1CB0-9230	20	---	X10	S5	375	Pentode No. 2
13V10	12.6	1C80-BA90	26	---	X10	S5	300	Pentode No. 1
13V10	12.6	1C30-7625	26	---	X4	S5	150	Pentode No. 2
13Z10	12.6	1C70-4685	0	---	X1	S5	500	Pentode No. 1
13Z10	12.6	1CB0-9230	20	---	X10	S5	375	Pentode No. 2
14BL11	12.6	1CB0-2A80	13	---	X10	S5	625	Pentode Sect.
14BL11	12.6	1C50-7060	11	---	X10	S5	375	Triode No. 1
14BL11	12.6	1C30-9040	18	---	X10	S5	450	Triode No. 2
14BR11	12.6	1C20-B340	10	---	X10	S5	500	Pentode Sect.
14BR11	12.6	1C80-6050	13	---	X10	S5	400	Triode No. 1
14BR11	12.6	1CA0-9070	14	---	X10	S5	300	Triode No. 2
15AF11	17.0	1CB0-2A90	12	---	X10	S5	450	Pent. Sect.) Set "Line Ad-
15AF11	17.0	1C60-8050	13	---	X4	S5	825	Triode No. 1) just" at 725 on
15AF11	17.0	1C30-4070	13	---	X4	S5	625	Triode No. 2) 1500 scale.
15BD11	12.6	1CB0-2A90	19	---	X10	S5	450	Pent. Sect.) Set "Line Ad-
15BD11	12.6	1C60-8050	15	---	X4	S5	800	Triode No. 1) just" at 110 on
15BD11	12.6	1C30-4070	18	---	X4	S5	700	Triode No. 2) 200 scale.
15FM7	12.6	1CA0-B090	23	---	X2	S5	300	Triode No. 1) Set "Line Ad-
15FM7	12.6	1C80-5070	72	---	X4	S5	725	Triode No. 2) just" at 110 on) 200 scale.
15FY7	17.0	1CA0-B090	20	---	X2	S5	225	Triode No. 1) Set "Line Ad-
15FY7	17.0	1C30-5070	55	---	X10	S5	475	Triode No. 2) just" at 725 on) 1500 scale.
15KY8	17.0	4520-6730	39	---	X10	S5	300	Pent. Sect.) Set "Line Ad-
15KY8	17.0	4590-8010	16	---	X2	S5	350	Triode Sect.) just" at 700 on) 1500 scale.
16GY5	17.0	1C90-0BA0	59	---	X4	S5	800	CAP = P on Adapter
16KA6	17.0	1C50-03A4	62	---	X10	S5	300	CAP = P on Adapter
17AB10	17.0	1C70-4685	0	---	X1	S5	500	Limiter Grid
17AB10	17.0	1C50-4687	0	---	X1	S5	525	Quadrature Grid
17AB10	17.0	1CB0-9230	35	---	X4	S5	700	Pentode No. 2
17AX3	17.0	1C00-4070	0	40	SH	S3	650	
17AY3	17.0	4500-2090	0	52	SH	S3	650	
17BE3	17.0	1C00-A070	0	58	SH	S3	650	
17BF11	17.0	1C80-BA90	30	---	X10	S5	375	Pentode No. 1
17BF11	17.0	1C30-7625	17	---	X2	S5	200	Pentode No. 2
17BH3	17.0	4500-2090	0	52	SH	S3	650	
17BS3	17.0	4500-2090	0	60	SH	S3	400	
17BZ3	17.0	1C00-A070	0	77	SH	S3	400	
17C9	17.0	4570-9860	16	---	X4	S5	700	Tetrode No. 1
17C9	17.0	4510-32A0	16	---	X4	S5	700	Tetrode No. 2
17GE5	17.0	1CB0-72A0	26	---	X10	---	550	Hold down S1 and Press S5
17GJ5	17.0	4560-0730	31	---	X10	---	450	CAP = P on Adapter Hold down S1 and Press S5
17GT5	17.0	4560-9730	31	---	X10	---	450	Hold down S1 and Press S5
17GV5	17.0	1C90-0BA0	27	---	X10	---	525	CAP = P on Adapter Hold down S1 and Press S5
17JB6	17.0	4520-0138	31	---	X10	---	450	CAP = P on Adapter Hold down S1 and Press S5
17JG6A	17.0	4520-9736	36	---	X10	---	550	Hold down S1 and Press S5
17JM6	17.0	1C50-032A	48	---	X10	S5	350	CAP = P on Adapter
17JN6	17.0	1CB0-7324	48	---	X10	S5	350	
17JT6	17.0	4520-9736	47	---	X10	S5	275	
17JZ8	17.0	1C70-4890	35	---	X4	S5	725	Pentode Sect.
17JZ8	17.0	1CA0-20B0	32	---	X2	S5	400	Triode Sect.

NOTE: When using CA-4 Adapter, set Tester Selectors to 1234-5678

TUBE TYPE	FIL	ADAPTER SELECTORS	BIAS	SHUNT	MULT.	PRESS	MIN. MUT.COND.	NOTATIONS
17LD8	17.0	4520-6730	39	---	X4	S5	800	Pentode Sect.
17LD8	17.0	4590-8010	30	---	X2	S5	500	Triode Sect.
17X10	17.0	1C70-4685	0	---	X1	S5	500	Limiter Grid
17X10	17.0	1C50-4687	0	---	X1	S5	525	Quadrature Grid
17X10	17.0	1CB0-9230	35	---	X4	S5	700	Pentode No. 2
19Q9	20.0	4510-32A6	10	---	X4	S5	650	Pentode Sect.
19Q9	20.0	4580-9076	15	---	X10	S5	400	Triode Sect.
21GY5	20.0	1C50-07A0	32	---	X10	---	675	CAP = P on Adapter Hold down S1 and Press S5
21HB5	20.0	1CB0-72A0	59	---	X4	S5	625	
21HD5	20.0	1CB0-79A0	52	---	X10	S5	400	
21HJ5	20.0	1CB0-792A	53	---	X10	S5	350	
21JV6	20.0	1CB0-732A	60	---	X10	S5	325	
21JZ6	20.0	1C50-0324	63	---	X10	S5	300	CAP = P on Adapter
21KA6	20.0	1C50-03A4	62	---	X10	S5	300	CAP = P on Adapter
21LR8	20.0	4520-6730	40	---	X10	S5	350	Pentode Sect.
21LR8	20.0	4590-2010	21	---	X4	S5	350	Triode Sect.
21LU8	20.0	1C60-4890	40	---	X10	S5	350	Pentode Sect.
21LU8	20.0	1CA0-20B0	21	---	X4	S5	350	Triode Sect.
22BH3	20.0	4500-2090	0	52	SH	S3	650	Set "Line Adjust" to 850 on 1500 scale.
22BW3	25.0	1C00-A070	0	49	SH	S3	650	
22JF6	20.0	4520-0738	36	---	X10	---	550	CAP = P on Adapter Hold down S1 and Press S5
22JG6	20.0	4520-9736	36	---	X10	---	550	Hold down S1 and Press S5
22JU6	20.0	4520-0738	62	---	X4	S5	700	CAP = P on Adapter
23Z9	25.0	1C80-5970	40	---	X10	S5	300	Pentode Sect.
23Z9	25.0	1CA0-B070	20	---	X4	S5	550	Triode No. 1
23Z9	25.0	1C30-2070	30	---	X4	S5	350	Triode No. 2
24GA7	25.0	1C40-7350	49	---	X4	S5	700	Pentode Sect.
24GA7	25.0	1C00-B080	0	43	SH	S3	400	Diode Sect.
28HD5	25.0	1CB0-79A0	52	---	X10	S5	400	
30AG11	35.0	1C58-6749	11	---	X10	S5	525	⧗ Dual Triode. Set "Line Adjust" to 650 on 1500 scale.
30AG11	35.0	1C00-3A2B	0	78	SH	S1	400	⧗ Dual Diode
31JS6A	35.0	1C50-0324	68	---	X4	S5	600	CAP = P on Adapter
32GA7	35.0	1C40-7350	49	---	X4	S5	700	Pentode Sect.
32GA7	35.0	1C00-B080	0	43	SH	S3	400	Diode Sect.
33GT7	35.0	1CB0-5A80	34	---	X10	---	450	Pentode Sect. Hold down S1 and Press S5
33GT7	35.0	1C00-2040	0	76	SH	S3	400	Triode Sect.
33GY7	35.0	1CA0-5B80	34	---	X10	---	450	Pentode Sect. Hold down S1 and Press S5
33GY7	35.0	1C00-2040	0	76	SH	S3	400	Diode Sect.
33JV6	35.0	1CB0-732A	60	---	X10	S5	325	
34CD3	35.0	1C00-A070	0	63	SH	S3	650	
34CE3	35.0	1C00-4070	0	65	SH	S3	650	
38HE7	50.0	1C90-5B80	51	---	X10	S5	200	Pent. Sect. Set "Line Adjust" to 600 on 1500 scale.
38HE7	50.0	1C00-2040	0	82	SH	S1	500	Diode Sect.
38HK7	35.0	1C90-5B80	60	---	X4	S5	625	Pentode Sect.
38HK7	35.0	1C00-2040	0	88	SH	S1	400	Diode Sect.
42KN6	50.0	1C50-0324	64	---	X10	S5	300	CAP = P on Adapter. Set "Line Adjust" to 86 on 200 scale.
7586	6.3	AC40-2080	15	---	X10	S4	600	
7587	6.3	AC40-0280	10	---	X10	---	450	CAP = P on Adapter Hold down S1 and Press S5

NOTE: When using CA-4 Adapter, set Tester Selectors to 1234-5678

TUBE TYPE	FIL	ADAPTER SELECTORS	BIAS	SHUNT	MULT.	PRESS	MIN. MUT.COND.	NOTATIONS
7868	6.3	4560-9730	11	---	X10	S5	525	
7895	6.3	AC40-2080	16	---	X10	S5	525	
7984	12.6	1CA0-3B90	46	---	X10	S5	350	
8056	6.3	AC40-2080	10	73	SH	S1	650	Make no Gas Test
8058	6.3	AC00-0020	13	---	X10	S5	625	CAP = P, SHELL = G on Adapter
8149	12.6	1CA0-7890	50	---	X4	S5	700	
8150	12.6	1CA0-0860	50	---	X4	S5	700	CAP = P on Adapter
8156	12.6	1CA0-3760	31	---	X4	S5	625	
8203	6.3	AC40-2080	26	---	X10	S5	300	
8393	12.6	AC40-2080	24	---	X10	S5	500